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TRANSCRIPT OF RECORD.

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1889.

No. 217. 23

SIMON FLORSHEIM AND THOMAS H. BALL, APPELLANTS,

vs.

GUSTAV SCHILLING.

APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES FOR THE NORTHERN DISTRICT OF ILLINOIS.

FILED OCTOBER 18, 1886.

SUPREME COURT OF THE UNITED STATES.

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JUDD & DETWEILER, PRINTERS, WASHINGTON, AUGUST 6, 1889.

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1 Pleas in the circuit court of the United States for the northern district of Illinois, held at the United States court-rooms, in the city of Chicago, in the district aforesaid, before the Hon. Henry W. Blodgett, district judge of the United States for said district, on Monday, the eleventh day of January, 1886, in the December term of said court, in the year of our Lord one thousand eight hundred and eighty-six, and of our Independence the one hundred and tenth year.

WM. H. BRADLEY, *Clerk.*

SIMON FLORSHEIM and THOMAS H. BALL
vs.
GUSTAV SCHILLING. } In Chancery.

NORTHERN DISTRICT OF ILLINOIS, *ss:*

Be it remembered that on the twelfth day of June, 1882, came the complainants, by their solicitors, and filed in the clerk's office of the circuit court of the United States for the northern district of Illinois, at Chicago, in said district, their bond for costs and bill of complaint in said above-entitled cause; which said bond and bill are, respectively, in the words and figures following, to wit:

2 UNITED STATES OF AMERICA, *Northern District of Illinois,* } *ss:*

Circuit Court. July Term, A. D. 1882.

SIMON FLORSHEIM and THOS. H. BALL
vs.
GUSTAV SCHILLING. } In Chancery.

I enter myself security for costs in this cause and promise to pay all costs which may accrue to the opposite party in this action or to any of the officers of this court, and in default of payment by the complainants of any costs ordered or adjudged to be paid by them I hereby agree and stipulate that execution may issue against my property for any costs taxed against them.

Dated this 12 day of June, A. D. 1882.

THOMAS H. BALL.

Endorsed: Filed June 12th, A. D. 1882. W. H. Bradley, clerk.

2½ [Endorsed:] Gen. No. —. Circuit court United States, northern district Illinois. —— —— *vs.* —— ——. Bond for costs. Filed —— —, A. D. 188–. —— ——, clerk. $— deposited by pl'ffs' att'y. —— ——, plaintiffs' att'y.

3 In the United States Circuit Court for the Northern District of Illinois.

SIMON FLORSHEIM and THOMAS H. BALL
vs.
GUSTAV SCHILLING. } In Equity.

Bill.

To the judge of the circuit court of the United States for the northern district of Illinois, in chancery sitting:

1. Simon Florsheim and Thomas H. Ball, both residing in Chicago, in said northern district of Illinois, and both citizens of the State of Illinois, bring this their bill of complaint against Gustav Schilling, of said Chicago, in said northern district of Illinois, a citizen of the State of Illinois.

Thereupon your orators complain that before the 22nd of February, 1881, your orator, Simon Florsheim, was the original and first inventor of a new and useful improvement in corsets not known or used by others before his invention, and which had not at the time of his application for a patent therefor been in public use or on sale, with his knowledge or consent, for more than two years, as your orators believe.

2. And your orators further say that, pending the application for a patent therefor, as hereinafter stated, the said Simon Florsheim, by an instrument in writing, duly signed, transferred to your orator, Thomas H. Ball, one undivided half of said Florsheim's in-

4 terest in said invention, with the request to the Commissioner of Patents to issue the letters patent hereinafter mentioned to the said Florsheim and Ball, which said assignment was duly recorded in the Patent Office; all of which by said instrument in writing, ready in court to be produced, will more fully and at large appear.

3. And your orators further show that the said Simon Florsheim, so being the inventor of said improvement in corsets, made due application to the proper Department of the Government of the United States for letters patent therefor according to law; and, having duly complied with all the conditions of the laws in that behalf, such proceedings were had that on the 22d day of February, 1881, letters patent of the United States for said improvements, under the seal of the Patent Office, signed by the Secretary of the Interior and countersigned by the Commissioner of Patents, bearing date the day and year last aforesaid, and No. 238,100, were issued in due form and delivered to your orators, whereby there was granted and secured to them, their heirs and assigns, for the term of 17 years from February 22nd, 1881, the exclusive right of making, using, and vending to others to be used the said improvements, a description whereof was given in the words of the inventor in a schedule in writing accompanied by drawings, duly annexed to said letters patent and made part thereof, as by said letters patent or a duly authenticated copy thereof, ready in court to be produced, will more fully and at

large appear. A copy of said letters patent is annexed to this bill and made part thereof, marked "Exhibit A."

4. And your orators further show that before February 22d, 1881, your orator, Simon Florsheim, was the original inventor of a new and useful improvement in elastic gore, &c., for wearing apparel, not known or used by others before his invention, and which had not at the time of his application for a patent therefor been in public use or on sale, with his knowledge or consent, for more than two years, as your orators believe.

5. And your orators further say that, pending the application for a patent therefor, as hereinafter stated, the said Simon Florsheim, by an instrument in writing duly signed, transferred to your orator, Thomas H. Ball, one undivided half of said Florsheim's interest in said invention, with the request to the Commissioner of Patents to issue the letters patent hereinafter mentioned to the said Florsheim and Ball, which said assignment was duly recorded in the Patent Office; all of which by said instrument in writing, ready in court to be produced, will more fully and at large appear.

6. And your orators further show that the said Simon Florsheim, so being the inventor of said improvements in elastic gore, &c., made due application to thep roper Department of the Government of the United States for letters patents therefor according to law; and, having complied with all the conditions of the law in that behalf, that on the 22nd day of February, 1881, letters patent of the United States for said improvement, under the seal of the Patent Office, signed by the Secretary of the Interior and countersigned by the Commissioner of Patents, bearing date the day and year last aforesaid, and No. 238,101, were issued in due form of law and delivered to your orators, whereby there was granted and secured to them, their heirs and assigns, for the term of 17 years from the 22nd day of February, 1881, the exclusive right of making,
6 using, and vending to others to be used the said improvements, a description whereof was given in the words of the inventor in a schedule in writing accompanied by drawings, duly annexed to said letters patent and made part thereof, as by said letters patent or a duly authenticated copy thereof, ready in court to be produced, will more fully and at large appear. A copy of said letters patent is annexed to this bill and made part thereof and marked "Exhibit B."

7. And your orators further show that, by virtue of the premises hereinbefore recited, they became and now are the sole and exclusive owners of said letters patent Nos. 238,100 and 238,101 and the inventions and improvements therein and thereby secured; that the said inventions and improvements above described are and have been of great value and profit to your orators, and that the inventions described in both said letters patent have been brought into extensive use by your orators, greatly to the advantage of the public; that your orators have expended large sums of money in making and perfecting machinery for making such improvements and inventions; that the public generally have acquiesced in the rights secured to your orators under and by virtue of said letters

patent, and but for the infringement hereinafter complained of your orators would now be in the undisturbed possession and enjoyment of the exclusive privileges secured by the aforesaid letters patent.

8. Yet the said defendant, as your orators are informed and believe, well knowing the premises, but contriving wrongfully how to injure your orators, and without their consent or allowance, and without right, and in violation of your orator's rights, have, within the State of Illinois and within the northern district thereof,
7 made, used, and vended to others to be used a large number of corsets (how many your orators are unable to state, but pray the defendant may discover and set forth the number) containing the improvements and inventions, or substantial and material parts thereof, set forth and claimed in your orators' said letters patent Nos. 238,100 and 238,101, and thereby the said defendant has infringed and still does infringe, and your orators fear will continue to infringe, upon the exclusive rights secured to your orators as aforesaid.

9. To the end, therefore, that the defendant may, if he can, show cause why your orators shall not have the relief herein prayed, and may, but not upon oath, an answer under oath being hereby expressly waived, and according to the best of his knowledge and belief, full and true answer make to all the premises herein; that the defendant may be decreed to account for and pay over to your orators all gains and profits by him acquired from the unlawful use of your orators' invention, and all damages sustained by your orators from the defendant's unlawful acts; that an injunction be issued out of this court enjoining and restraining the defendant from making, using, or vending any corsets containing substantially the improvements and inventions secured to your orators by the above-named letters patent; that a preliminary injunction be issued out of this court pending the trial of this cause, enjoining the defendant from making and using said improvements and inventions; that your orators may have such other or further relief as equity may require and to your honors may seem meet.

10. May it please your honors to grant to your orators not only a writ of injunction, conformable to the prayer of this bill, but
7½ also a writ of subpœna directed to said Gustav Schilling, commanding him, at certain time and under certain penalty, to appear before your honors in this court, then and there to answer to this bill of complaint, and to abide by and perform such decree as the court shall make in the premises.

SIMON FLORSHEIM.
THOS. H. BALL.

COBURN & THACHER,
Complainants' Solicitors and of Counsel.

STATE OF ILLINOIS, }
County of Cook, } ss:

On the 12th day of June, 1882, personally appeared Simon Florsheim, one of the complainants in the above-entitled case, — being duly

sworn, on oath says that he has read the foregoing bill of complaint by him subscribed and knows the contents thereof, and that the same is true of his own knowledge except as to those matters therein stated to be on information and belief, — as to those matters he believes it to be true.

Before me—

JNO. C. MACGREGOR,
[SEAL.] *Notary Public.*

Endorsed: Filed June 12, 1882. Wm. H. Bradley, clerk.

8 On the same day, to wit, on the twelfth day of June, 1882, there issued out of said clerk's office a writ of subpœna in said entitled cause; which said writ, together with the return of the marshal endorsed thereon, is in the words and figures following, to wit:

9 UNITED STATES OF AMERICA, } ss:
Northern District of Illinois, }

The United States of America to Gustav Schilling, Greeting:

We command you and every of you that you appear before our judges of our circuit court of the United States of America for the northern district of Illinois, at Chicago, in said district, on the first Monday in the month of July next, to answer the bill of complaint of Simon Florscheim and Thomas H. Ball, this day filed in the clerk's office of said court, in said city of Chicago, then and there to receive and abide by such judgment and decree as shall then or thereafter be made, upon pain of judgment being pronounced against you by default.

To the marshal of the northern district of Illinois to execute.

Witness the Hon. Morrison R. Waite, Chief Justice of the Supreme Court of the United States of America, at Chicago aforesaid, this 12th day of June, in the year of our Lord one thousand eight hundred and eighty-two and of our Independence the 106th year.
[SEAL.]

W. H. BRADLEY, *Clerk.*

Memorandum.

The above-named defendant is notified that unless he shall enter his appearance in the clerk's office of said court, at Chicago aforesaid, on or before the day to which the above writ is returnable the complainants' bill will be taken against him as confessed and a decree entered accordingly.

W. H. BRADLEY, *Clerk.*

9½ I have served the within writ within my district in the following manner, to wit: Upon Gustav Schilling, therein named, on the 13 day of June, A. D. 1882, by personally delivering to him a true copy of the same on the aforesaid day.

A. M. JONES, *U. S. Marshal,*
By W. D. RINGLAND, *Deputy.*

Marshal's fees:

1 service	$2 00
1 copy	50
1 mile	06
	$2 56

Endorsed: Filed June 21st, A. D. 1882. W. H. Bradley, clerk.

10 Afterwards, to wit, on the twenty-seventh day of June, 1882, came the defendant, by his solicitors, and filed in said clerk's office his appearance in said entitled cause; which said appearance is in the words and figures following, to wit:

Appearance.

United States Circuit Court, N. Dist. of Illinois.

SIMON FLORSHEIM *et al.*, Compl'ts,
vs.
GUSTAV SCHILLING, Def't. } In Equity.

And now comes the said Gustav Schilling, defendant above named, by Flower, Remy & Gregory, his solicitors, and hereby enters his appearance as defendant in the above-entitled cause.

Chicago, June 26, 1882.

FLOWER, REMY & GREGORY,
Solicitors for Def't.

Endorsed: Filed Jun. 27, 1882. W. H. Bradley, clerk.

Afterwards, to wit, on the 5th day of July, 1882, came the defendant, by his solicitors, and filed in said clerk's office his answer in said entitled cause; which said answer is in the words and figures following, to wit:

11 In the United States Circuit Court in and for the Northern District of Illinois.

STATE OF ILLINOIS, } *ss:*
County of Cook, }

GUSTAV SCHILLING, Def't,
ads.
SIMON FLORSHEIM and THOMAS H. BALL, Compl'ts. } In Equity.

Answer.

The answer of Gustav Schilling, defendant, to the bill of complaint of Simon Florsheim and Thomas H. Ball, complainants.

This defendant, now and at all times hereafter, saving and reserving unto himself all benefits and advantage of exception which can or may be had or taken to the many errors, uncertainties, or other

imperfections in the said bill contained, for answer thereunto or to so much and such parts thereof as this defendant is advised it is or are material or necessary for him to make answer unto, answering, says: This defendant admits that the said complainant, Simon Florsheim, prior to the 22nd day of February, 1881, made his application to the proper Department of the Government of the United States for letters patent for an alleged improvement in corsets, of which improvement the said Simon Florsheim in such application claimed and pretended to be the inventor, but which this defendant denies, as hereinafter stated; and he further admits that on
12 the 22nd day of February, 1881, letters patent of the United States for said alleged improvement, under the seal of the Patent Office, signed by the Secretary of the Interior and countersigned by the Commissioner of Patents, bearing date the day and year last aforesaid and numbered 238,100, were issued and delivered to the complainants, which said letters patent upon their face purported to grant and secure to the complainants, their heirs and assigns, for the term of 17 years from February 22nd, 1881, the exclusive right of making, using, and vending to others to be used the said alleged improvement as described in said letters patent, but whether the paper annexed to said bill of complaint is a true copy of said letters patent and the alleged drawings and descriptions of said alleged improvement this defendant does not know, and leaves the complainants to the proof thereof as they may be advised. This defendant, further answering, says that whether the said complainant, Simon Florsheim, before the issuing of the said letters patent last above mentioned and pending the application therefor, by an instrument in writing or otherwise, assigned and transferred to the complainant, Thomas H. Ball, one undivided half or any other share or portion of his pretended interest in said alleged invention, with the request to the Commissioner of Patents to issue the said letters patent to the said Florsheim and Ball, or whether any such assignment or transfer has ever been recorded in the Patent Office, he, this defendant, does not know save by the complainants' bill, and cannot, therefore, set forth as to his belief or otherwise. This defendant, further answering, denies that the said Simon Florsheim was, before the said 22nd day of February or at any other time, the original or first inventor of the improvement in corsets named and described in the applica-
13 tion for a patent therefor by said Florsheim and described and set forth and designated in said letters patent numbered 238,100, or that such invention was not known or used by others before his, said Florsheim's, pretended invention thereof; and this defendant denies that the same had not been in use or on sale with his, said Florsheim's, knowledge or consent for more than two years at the time of his, said Florsheim's, application for a patent therefor, as is by him, said Florsheim, and the said Thomas H. Ball in their said bill alleged. This defendant, further answering, admits that the said Simon Florsheim made, on or before the 22d day of February, 1881, an application to the proper Department of the Government of the United States for letters patent for an alleged improvement in elastic gore, &c., for wearing apparel, claimed to have been in-

vented by him, said Simon Florsheim, but whether, pending such application for a patent therefor, the said Simon Florsheim, by an instrument in writing or in any way, assigned or transferred to the said Thomas H. Ball one undivided half or any other part or share of his, said Florsheim's, pretended interest in said invention, with the request to the Commissioner of Patents to issue letters patent therein to the said Florsheim and Ball, as alleged in said bill of complaint, or whether any such assignment or transfer was ever recorded in the Patent Office, he, this defendant, does not know, save by the complainants' bill, and cannot therefore set forth as to his belief or otherwise; and this defendant, further answering, admits that on the 22nd day of February, 1881, letters patent of the United States for said alleged improvement, under the seal of the Patent Office, signed by the Secretary of the Interior and countersigned by
14 the Commissioner of Patents, bearing date the day and year last aforesaid and numbered 238,101, were issued and delivered to the complainants, which said letters patent upon their face purported to grant and secure to the complainants, their heirs and assigns, for the term of 17 years from February 22nd, 1881, the exclusive right of making, using, and vending to others to be used the said alleged improvement as described in said letters patent, but whether the papers annexed to said bill of complaint are true copies of said letters patent and the drawings and description of said alleged improvement this defendant does not know, but leaves the complainants to the proof thereof as they may be advised; and this defendant, further answering, denies that he, the said Simon Florsheim, was before the said 22nd day of February, 1881, or at any other time the original or first inventor of the said improvement in elastic gore, &c., for wearing apparel named and described in his said application for a patent therefor and in said letters patent, or that such invention was not known or used by others before his, said Florsheim's, pretended invention thereof; and he denies that the same had not been in use and on sale with his, said Florsheim's, knowledge or consent for more than two years at the time of his, said Florsheim's, application for a patent therefor, as is by him, said Florsheim, and the said Thomas H. Ball in their bill of complaint above alleged. This defendant, further answering, admits that the said Simon Florsheim made, on or before the 22nd day of February, 1881, an application to the proper Department of the Government of the United States for letters patent for an alleged improvement in elastic gore, &c., for wearing apparel claimed to have been invented by him, said Simon Florsheim, but whether, pending such application for a patent therefor, the said Simon
15 Florsheim, by an instrument in writing or in any way, assigned or transferred to the said Thomas H. Ball one undivided half or any other part or share of his, said Florsheim's, pretended interest in said invention, with the request to the Commissioner of Patents to issue letters patent thereon to the said Florsheim and Ball, as alleged in said bill of complaint, or whether any such assignment or transfer was ever recorded in the Patent Office, he, this defendant, does not know, save by the complainants' bill, and cannot

therefore set forth as to his belief or otherwise. This defendant, further answering, admits that on the 22nd day of February, 1881, letters patent of the United States for said alleged improvement, under the seal of the Patent Office, signed by the Secretary of the Interior and countersigned by the Commissioner of Patents, bearing date the day and year last aforesaid and numbered 238,101, were issued and delivered to the complainants, which said letters patent upon their face purported to grant and secure to the complainants, their heirs and assigns, for the term of 17 years from February 22nd, 1881, the exclusive right of making, using, and vending to others to be used the said alleged improvement as described in said letters patent, but whether the papers annexed to said bill of complaint are true copies of said letters patent and the drawings and description of said alleged improvement this defendant does not know, but leaves the complainants to the proof thereof as they may be advised. This defendant, further answering, denies that he, the said Simon Florsheim, was before the said 22nd day of February, 1881, or at any other time, the original or first inventor of the said improvement in elastic gore, &c., for wearing apparel, named and described in his said ap-
16 plication for a patent therefor and in said letters patent, or that such invention was not known or used by others before his, said Florsheim's, pretended invention thereof; and he denies that the same had not been in use or on sale with his, said Florsheim's, knowledge or consent for more than two years at the time of his, said Florsheim's, application for a patent therefor, as is by him, said Florsheim, and the said Thomas H. Ball in their bill of complaint above alleged; and this defendant, further answering, states, avers, and alleges that he, this defendant, before the tenth day of March, 1879, was the original and first inventor of a new and useful improvement in corsets not known or used by others before his invention thereof and which had not, at the time for a patent therefor by him, this defendant, and the said Simon Florsheim, as hereinafter stated, been in public use or on sale with his, this defendant's, knowledge or consent for more than two years, as this defendant avers, and which invention and improvement have been theretofore used and applied by this defendant in the manufacture of gloves, gaiters, and overalls, and for which invention and improvement in its application to gloves, gaiters, and overalls this defendant had, in the months of January and February, 1879, applied for and received letters patent of the United States, securing to him the exclusive use and right of said invention and improvement and such application, as by the said letters patent, duly recorded and now remaining of record in the said Patent Office of the United States, or duly authenticated copies thereof, ready in court to be produced, will more fully and at large appear; that during the time of the experimenting upon and with and the finishing of said invention and improvement in its application to corsets he, this defendant, was assisted therein in various ways
17 by the said Simon Florsheim, and aided therein by his time, devices, and suggestions in regard to such application of said improvement and the utility and feasibility thereof, in consideration whereof it was consented and agreed by this defendant, at the

solicitation and request of the said Simon Florsheim, then [that] they, this defendant and said Florsheim, should be united in interest in the letters patent to be obtained therefor, and that letters patent should be applied for by them, this defendant and said Florsheim, in their joint names; that, in pursuance of such understanding and agreement, they, this defendant and the said Florsheim, on or about the tenth day of March, 1879, jointly made due application to the proper Department of the Government of the United States for letters patent therefor, according to law, and, having duly complied with all the conditions of the law in that behalf, such proceedings were thereupon had that on the 25th day of November, 1879, letters patent of the United States, under the seal of the Patent Office, signed by the Secretary of the Interior and countersigned by the Commissioner of Patents, bearing date the day and year last aforesaid and numbered 222,082, were issued in due form and delivered to this defendant and the said Simon Florsheim, whereby there was granted and secured to them, their heirs and assigns, for the term of seventeen years from November 25th, 1879, the exclusive right of making, using, and vending, and vending to others to be used the said invention and improvement, a description whereof was given in the words of the said joint applicants for said letters patent in a schedule in writing, accompanied by drawings, duly annexed to said letters patent and made a part thereof, as by said letters patent, duly recorded and now re-
18 maining of record in the said Patent Office, or a duly authenticated copy thereof, ready in court to be produced, will more fully and at large appear; and this defendant, further answering, alleges that the said inventions and improvements claimed by the complainants under the said letters patent numbered 238,100 and 238,101 and the inventions and improvements therein and thereby attempted to be secured to the said Simon Florsheim and Thomas H. Ball are really, intrinsically, and substantially, in result, purpose, and effect, identical with and the same as the inventions and improvements so secured to this defendant and the said Simon Florsheim by their above-described letters patent so issued to them jointly, as above mentioned, November 25th, 1879, numbered 222,082, slightly varied in their construction and application by said Florsheim for the purpose and with the intent of wrongfully and deceitfully evading the said letters patent so jointly issued to this defendant and said Florsheim and depriving this defendant of all benefit, profit, and advantage which he, this defendant, might and otherwise would derive therefrom; that the said Florsheim and Ball, by a simple variation in form and application and an immaterial change of specification under the said letters patent so by them procured as aforesaid, accomplished a deed to accomplish the same results, purpose, object, and effect accomplished and secured by this defendant and said Florsheim as patentees under and by virtue of the improvement and invention so secured to them by said letters patent granted to this defendant and said Florsheim November 25, 1879, and numbered 222,082, as aforesaid, and this defendant

alleges as matter of fact that the pretended invention and improvement, so called, claimed by said Florsheim and Ball in their
19 specifications, and for which the two said patents mentioned and described in the complainants' bill of complaint in this suit were granted as aforesaid to said Florsheim and Ball, involve the same substantial identity and principle and are in reality the same invention and improvement contained in and secured by the aforesaid letters patent so granted to this defendant and said Florsheim as aforesaid and none other; that the same are not independent discoveries and contain no change in principle, and are in substance and effect identical and the same, all which facts were well known to the said Simon Florsheim and Thomas H. Ball at the time of their application for and the procuring of and the granting to them of the aforesaid letters patent numbered 238,100 and 238,101 respectively, and he alleges that the same are in fraud and violation of the rights and equities of this defendant. And this defendant, further answering, expressly denies that he, contriving wrongfully how to injure the complainants, as in said bill alleged, has at any time, within the State of Illinois or within the northern district thereof, without right, or in violation of the rights of the complainants, or by way of any infringement of any of the rights of the said complainants attempted or alleged to be secured or granted to them by said letters patent numbered 238,101, made or caused to be made, or vended to others to be used, a large number of corsets or any number of corsets whatever; and he denies that he has ever made or caused to be made, or vended to others to be used, any corsets except as he had a lawful right to do, as hereinafter mentioned. And this defendant, further answering, says that he has since the issuing of said letters patent to him and the said Simon Florsheim,
20 as aforesaid, on the said 25th day of March, 1879, made and sold, under and by virtue of his said letters patent numbered 222,082, three dozen corsets and no more. And this defendant, further answering, says that he will insist and will maintain and prove, as this honorable court shall direct, that he, this defendant, is the sole and only true originator and inventor of the inventions and improvements in corsets and elastic gores, &c., by them, the complainants, in their said bill claimed, and that he, this defendant, is entitled to all the benefits and advantages thereof, as joint owner of the same with the said Simon Florsheim under said letters patent numbered 222,082 and issued and dated November 25, 1879, and that the procuring of the said patent to the said complainants, Florsheim and Ball, for the pretended inventions and improvements therein described and contained was in fraud and derogation of the lawful and equitable rights of this defendant and against equity and good conscience, and that said letters patent, being those numbered 238,100 and 238,101, were and are null and void. And this defendant, further answering, denies all the equities claimed and pretended by the said complainants in their aforesaid bill of complaint. And this defendant, further answering, denies that the complainants are entitled to the relief or any part thereof in their said bill of complaint demanded; and he further denies all and all manner of

unlawful combination and confederacy wherewith he is in said bill charged, without this, that there is any other matter, cause, or thing in the complainants' said bill of complaint charged or contained material or necessary for this defendant to make answer unto and not herein and hereby well and sufficiently answered, confessed, traversed and avoided or denied, is true to the knowl-
21 edge or belief of this defendant; all which matters and things this defendant is ready and willing to aver, maintain, and prove as this honorable court shall direct, and prays to be hence dismissed with his reasonable costs and charges in this behalf most wrongfully sustained.

FLOWER, REMY & GREGORY,
Solicitors for Defendant.

JNO. C. CHUMASERO,
Of Counsel.

(Endorsed:) Filed July 5th, 1882. W. H. Bradley, clerk.

22 Afterwards, to wit, on the eighteenth day of July, 1882, came the complainants, by their solicitors, and filed in said clerk's office their replication to the answer of the defendant in said entitled cause; which said replication is in the words and figures following, to wit:

In the Circuit Court of the United States for the Northern District of Illinois.

SIMON FLORSHEIM and THOMAS H. BALL
vs.
GUSTAV SCHILLING.
} In Equity.

The Replication of Simon Florsheim and Thomas H. Ball, Complainants, to the Answer of Gustav Schilling, Defendant.

These repliants, saving and reserving to themselves all and all manner of advantage of exception which can or may be had and taken to the manifold errors, uncertainties, and insufficiencies of the answer of the said defendant, for replication thereunto say that they do and will aver, maintain, and prove their said bill to be true, certain, and sufficient in law to be answered unto by the said defendant, and that the answer of the said defendant is very uncertain, evasive, and insufficient in law to be replied unto by these repliants,
23 without this, that any other matter or thing in the said answer contained material or effectual in law to be replied unto and not herein and hereby well and sufficiently replied unto, confessed and avoided, traversed or denied, is true; all which matters and things these repliants are ready to aver, maintain, and prove as this honorable court shall direct, and humbly pray as in and by their said bill they have already prayed.

SIMON FLORSHEIM,
THOMAS H. BALL,
By COBURN & THACHER, *Solicitors.*

Endorsed: Filed Jul- 8th, 1882. Wm. H. Bradley, clerk.

24 Afterwards, to wit, on the fourteenth day of November, in the adjourned October term of said court, 1882, in the record of the proceedings thereof in said entitled cause, before Hon. Henry W. Blodgett, district judge, is the following entry, to wit:

Order.

SIMON FLORSCHEIM *et al.*
vs.
GUSTAV SCHILLING. } In Chancery.

Now come the parties, by their solicitors, and this cause now coming on to be heard upon the motions to amend the answer herein, and to take proof, and the same being now heard, the court sustains said motions, and thereupon it is ordered that said defendant have leave to amend his answer *instanter*, the proof already taken to stand, and that the defendant be allowed twenty days to take additional proof.

Afterwards, to wit, on the eighteenth day of November, 1882, came the defendant, by his solicitors, and filed in said clerk's office his amended answer in said entitled cause; which said amended answer is in the words and figures following, to wit:

25 In the United States Circuit Court in and for the Northern District of Illinois.

STATE OF ILLINOIS, } *ss:*
County of Cook, }

GUSTAV SCHILLING, Def't,
ads.
SIMON FLORSHEIM and THOMAS H. BALL, Compl'ts, } In Equity.

Amended Answer.

The amended answer of Gustav Schilling, defendant, to the bill of complaint of Simon Florsheim and Thomas H. Ball, complainants.

This defendant, now and at all times hereafter, saving and reserving unto himself all benefit and advantage of exception which can or may be had or taken to the many errors,
26 uncertainties, and other imperfections in the said bill contained, for answer thereunto, or to so much and such parts thereof as this defendant is advised it is or are material or necessary for him to make answer unto, answering, says:

This defendant admits that the said complainant, Simon Florsheim, prior to the 22nd day of February, 1881, made an application to the proper Department of the Government of the United States for letters patent for an improvement in corsets, of which improvement the said complainant in his said application claimed and pretended to be the original inventor, but which this defendant de-

nies as hereinafter stated; and this defendant further admits that on the 22nd day of February, 1882, letters patent of the United States for such alleged improvement, under the seal of the Patent Office, signed by the Secretary of the Interior and countersigned by the Commissioner of Patents, bearing date the day and year last aforesaid, and numbered 238,100, were issued and delivered to the complainants, which said letters patent upon their face purported to grant and secure to the complainants, their heirs and assigns, for the term of seventeen years from February 22, 1881, the exclusive right of making, using, and vending to others to be used the said alleged improvement, as described in said letters patent, but whether the paper annexed to the said bill of complaint is a true copy of said letters patent and the alleged drawings and description of said alleged improvements this defendant does not know, but leaves the complainants to the proof thereof as they may be advised.

This defendant, further answering, says that whether the said complainant Florsheim, before the issuing of said letters pat-
26½ ent last above named and pending his said application therefor, by any instrument in writing or otherwise, assigned and transferred to his co-complainant, Thomas H. Ball, one undivided half or any other share or portion of his pretended interest in said alleged invention, with the request to the Commissioner of Patents to issue the said letters patent to the said complainants, or whether any such assignment or transfer has ever been recorded in the Patent Office he, this defendant, does not know save by the complainants' said bill, and cannot therefore set forth as to his belief or otherwise.

This defendant, further answering, denies that he, the said Simon Florsheim, was, before the said 22nd day of February, 1881, or at any time, the original or first inventor of the "improvement in corsets" named and described in his application for a patent therefor above mentioned, and designated in said letters patent numbered 238,100; and he denies that such invention and improvement was not known or used by others before his, said Florsheim's, pretended invention thereof; and he denies that the same had not been in use and for and on sale with his, said Florsheim's, knowledge or consent for more than two years at the time of and before his, said Florsheim's, application for a patent therefor as aforesaid, as is by the said complainants in their said bill of complaint alleged.

This defendant, further answering, admits that the said Simon Florsheim made, on or before the 22nd day of February, 1881, an application to the proper Department of the Government of the United States for letters patent for an alleged improvement in "elastic gore, &c., for wearing apparel," claimed and pretended by him, said Florsheim, to have been invented by him, but whether pending such application the said Florsheim, by any instru-
27 ment in writing or in any other manner, assigned or transferred to his co-complainant Ball one undivided half or any other part or share of his, said Florsheim's, pretended interest therein, with the request to the Commissioners of Patents to issue letters patent therefor and thereon jointly to the said complainants, as in

their said bill is alleged, or whether any such transfer or assignment was ever recorded in the Patent Office, this defendant has no knowledge or information save by the complainants' said bill, and cannot therefore set forth as to his belief or otherwise.

This defendant, further answering, admits that on the 22d day of February, 1881, letters patent of the United States for said alleged improvement last named, under the seal of the Patent Office, signed by the Secretary of the Interior and countersigned by the Commissioner of Patents, bearing date the day and year last aforesaid, and numbered 238,101, were issued and delivered to the complainants, which said letters patent upon their face purported to grant and secure to the complainants, their heirs and assigns, for the term of seventeen years from February 22nd, 1881, the exclusive right of making, using, and vending to others to be used the said alleged improvement as described in said letters patent, but whether the papers annexed to said bill of complaint are true copies of said letters patent and the drawings and description of said alleged improvement this defendant does not know, but leaves the complainants to prove the same as they may be advised.

This defendant, further answering, denies that he, the said Simon Florsheim, was before the said 22nd day of February, 1881, or at any other time the original or first inventor of the said improvement in elastic gore, &c., for wearing apparel, named and described
27½ in his said application for a patent therefor and described and set forth in said letters patent numbered 238,101; and he denies that such invention was not known or used by others before his, said Florsheim's, pretended invention thereof; and he denies that the same had not been in use and for and on sale with his, said Florsheim's, knowledge or consent for more than two years before and at the time of his, said Florsheim's, application for a patent therefor, as is by said complainants in their said bill alleged.

And this defendant, further answering, alleges that the abovementioned inventions and improvements claimed by the complainants in their said bill of complaint not to have been known to and used by others and not to have been in use or for sale without the knowledge or consent of said Florsheim or the complainants for more than two years previous to said Florsheim's application for a patent therefor, as in said bill of complaint stated, had been in such use and known by others and on sale with the knowledge and consent of said Florsheim, except as hereinafter stated, for more than two years before his, said Florsheim's, application for the patents in said bill of complaint stated and set forth.

And this defendant, further answering, says that he is about sixty-five years of age, and for the greater part of his life has been engaged in the manufacture of articles of wearing apparel, gloves, gaiters, overalls, suspenders, elastics, and other articles, and is familiar with their construction and make, and the adaptation to such articles of the various improvements which have from time to time suggested themselves and become convenient and necessary to the public use, and the convenience, wants, and necessities of

those who used them; that on the fourth day of
28 March, 1880, this defendant and the said Simon Florsheim, as the original inventors of a new and useful improvement in pantaloon garments, not known or used by others before their invention, and which had not at the time of application for a patent therefor by them, said Florsheim and this defendant, been in public use or for sale with their knowledge or consent for more than two years, as this defendant believes, that this defendant and the said Florsheim thereon made due application to the proper Department of the Government of the United States for joint letters patent therefor according to law; and, having complied with all the conditions of the law in that behalf, that on the 17th day of February, 1880, letters patent of the United States for said improvement, under the seal of the Patent Office, signed by the Secretary of the Interior and countersigned by the Commissioner of Patents, bearing date the day and year last aforesaid, and numbered 224,559, were issued in due form of law and delivered to this defendant and the said Florsheim, whereby there was granted to this defendant and the said Florsheim jointly, and to their heirs and assigns, for the term of seventeen years from the 17th day of February, 1880, the exclusive right of making, using, and vending to others to be used the said improvement, a description whereof was given — the words of the inventors in a schedule in writing, accompanied by drawings, duly annexed to said letters patent, and which description and drawings were and are in the words and figures following, to wit:

28½ UNITED STATES PATENT OFFICE.

GUSTAV SCHILLING and SIMON FLORSHEIM, of Chicago, Illinois.

Pantaloon Garment.

Specifications forming part of Letters Patent No. 224,559, dated February 17, 1880. Application filed March 4, 1879.

To all whom it may concern:

Be it known that we, Gustav Schilling and Simon Florsheim, both of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful improvements in pantaloon garments; and we do hereby declare the following to be a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form part of this specification.

Our invention consists in pantaloons, drawers, or overalls, as a new article of manufacture, provided with elastic straps at the sides, such straps composed of a series of spiral springs held in puckered tubes between two layers of material and arranged lengthwise of the waistband and supported by intermediate loops, and also in pantaloons, drawers, or overalls, as a new article of manufacture, having a triangular gore at the back of the waistband, composed of

a series of spiral springs held in puckered tubes and arranged in a close group at the top, followed by puckered spaces separated by two spiral springs, all as more specifically hereinafter described.

In the drawings figure 1 represents a rear view of the body portion of an overall. Fig. 2 represents a side view of the same; and Fig. 3, an enlarged sectional view of the elastic gore, showing its manner of construction.

Like letters in the several figures of the drawings indicate like parts.

A designates the body portion of a pair of overalls, and *a* the waistband to the same.

C is an elastic gore inserted in the rear upper — of the garment, and D D are elastic straps secured with their ends upon the waistband at the sides of the overalls, whereby the support of the garment is brought upon the hips, and the loose portion of the waistband, intermediate of the strap ends, for the purpose of preventing its sagging down, has two loops, E, attached, which inclose and by which it is suspended on the straps.

The gore C, as well as the straps D, are composed each of two flaps, *c c*, of thin leather or of cloth, which may be of a corresponding color with the fabric of the pantaloons. These flaps are cut about twice the length the gore or strap is to be when finished, and are united by longitudinal parallel seams of stitching, so as to form small tubes between two such seams, into each of which is inserted a small coil spring, *d*. These springs *d* we make of very fine brass wire, which we coil upon a small mandrel, so that the spirals are successively in close contact with each other. The leather or fabric tubes are contracted over these springs so as to form a multitude of small wrinkles equally distributed over the whole length of said springs, and the ends of the latter we secure in the ends of the tubes to the fabric.

For the gore we arrange the springs *d* in series of two, three, or four, with a blank space between each two series and in accordance with the required elastic resistance necessary for insuring a close yet comfortable fit for the pantaloons, and with the length of the springs proportional to the varying width of the gore.

For the side straps D we arrange about four such springs side by side, and we attach the ends of such straps upon the waistband *a* and cover said ends by small patches of leather or fabric, and to the waistband, at equal distance between the ends of and over the straps D, we secure two leather or fabric loops, E, which will sustain the otherwise loose portion of the waistband.

Such springs interlaid between leather or cloth which will conceal and protect the same and will prevent their being stretched beyond the length of the covering material make a much more durable elastic strap or gore than those made of rubber shirrs interwoven with or covered by the threads of the fabric, which are easily influenced by the weather and become brittle with age, besides the disagreeableness of rubber when it comes in contact with the human skin.

A pair of pants arranged with our elastic gore and straps in the manner described will give an easy and comfortable fit to the human body and limbs, allowing the same to yield to every movement without losing their original shape.

Although it may be desirable to apply both the gore and straps to pantaloon garments, yet one or the other alone may be sufficient to bring about the desired good result, and therefore we do not wish to be restricted to their combined application.

The straps may be detachable, secured by button or buckles, so as to enable the same to be taken off while the overalls, pants, or drawers are sent to the laundry for cleaning or washing, and such elastic straps will be applied to good advantage also to the vest in place of the rear latchets and buckle. We do not claim in this application the invention of spirally coiled wire springs held in puckered tubes between two layers of material, neither do we claim the application to pantaloons, overalls, or drawers of elastic gore pieces or straps, but as we have not found described and do not know of such garments provided with straps or with gores constructed, arranged, and applied as described in our specification—

We claim as new and of our own invention—

1. As a new article of manufacture, pantaloons, drawers, or overalls provided at the sides with elastic straps D D, composed of a series of spiral wire springs held in puckered tubes between two layers of material arranged lengthwise of the waistband and supported by intermediate — E E, substantially as and for the purposes set forth.

2. As a new article of manufacture, pantaloons, drawers, or overalls provided with a triangular gore, C, composed of a series of spiral wire springs held in puckered tubes and arranged in a close group at the top, followed by puckered spaces separated by two spiral wire springs, substantially as and for the purposes set forth.

GUSTAV SCHILLING.
SIMON FLORSHEIM.

(Witnesses:)
EMIL H. FROMMANN.
ERNST JEBSEN.

And to which said letters patent and the description, specifications, and drawings annexed thereto and now remaining on file in the said Patent Office, or a duly authenticated copy thereof, ready to be produced in court on the trial of this cause, this defendant prays leave to refer.

30½ And this defendant, further answering, says that on the tenth day of March, 1880, this defendant and the said Simon Florsheim, as the original and joint inventors of a new and useful improvement in corsets, not known or used by others before their invention and which had not at the time of the application for a patent therefor by them, this defendant and the said Simon Florsheim, been in public use or for sale with their knowledge or consent for more than two years, as this defendant believes, that this defendant and the

said Florsheim thereupon made due application to the proper Department of the Government of the United States for joint letters patent therefor according to law; and, having complied with all the conditions of the law in that behalf, that on the 25th day of November, 1879, letters patent of the United States for said improvement, under the seal of the Patent Office, signed by the Secretary of the Interior and countersigned by the Commissioner of Patents, bearing date the said 25th day of November, 1879, and numbered 222,082, were issued in due form of law and delivered to this defendant and the said Simon Florsheim, whereby there was granted to this defendant and said Simon Florsheim jointly and to their heirs and assigns, for the term of 17 years from the said 25th day of November, 1879, the exclusive right of making, using, and vending to others to be used the said improvements, a description whereof was given in the words of the inventors in a schedule in writing accompanied by drawings duly annexed to said letters patent and made part thereof, as by said letters patent, or a duly authenticated copy thereof ready in court to be produced, will more fully and at large appear. A copy of said letters patent is annexed to this answer and made a part thereof and marked Exhibit A.

31 And this defendant, further answering, says that all of the said invention and improvements claimed by the said Simon Florsheim and Thomas H. Ball in their said bill of complaint, under letters patent numbered 238,100 and 238,101, and therein and thereby attempted and intended to be secured to them, the said Simon Florsheim and Thomas H. Ball, except the continuous springs therein mentioned, are really, intrinsically, practically, and substantially in result, purpose, and effect covered by, contained in, and identical with the same inventions and improvements so secured as aforesaid to this defendant and said Florsheim jointly by the above-named letters patent so as aforesaid issued to this defendant and said Florsheim on the said 25th day of November, 1879, numbered 222,082, and the said 17th day of February, 1880, numbered 224,559, above set forth, slightly varied in their formation and application by said Florsheim; and that said patents so obtained by said Florsheim as aforesaid and numbered 238,100 and 238,101 contain no new or novel improvements or inventions, and that all such pretended improvements and inventions in said two last-named patents and the drawings, descriptions, and specifications attached thereto are covered by and contained in the said patent so procured by this defendant and said Florsheim jointly as aforesaid on the 25th day of November, 1879, and numbered 222,082, except the continuous metal springs in said Florsheim & Ball patents described, of which hereafter.

And this defendant says that the complainants Florsheim and Ball in said bill of complaint named, wrongfully intending to deceive and defraud this defendant, and to deprive him of the benefit, gains, and profits and other rights and privileges so secured

31½ to him by the said patent to him as aforesaid granted jointly with the said Simon Florsheim on the said 25th day of November, 1879, and numbered 222,082, and to evade the same, and

wrongfully and fraudulently to appropriate and secure wholly to themselves all the benefits and advantages thereof by a simple variation and description of said invention and improvement and an evasive description and immaterial change of specifications to accomplish the same object and effect produced and accomplished by the process and application secured by said joint patent to this defendant and said Florsheim above mentioned, did fraudulently and unjustly, and with the intent and purpose above mentioned, procure to be issued to them the said above-named letters patent numbered 238,100 and 238,101, all which proceedings and doings of the said complainants Florsheim and Ball are of great injury to this defendant and contrary to equity and good conscience; and for these reasons this defendant prays this honorable court that his rights, whatever the same, may be in all things fully protected and preserved to him, this defendant.

And this defendant, further answering, says that as to that portion of said invention and improvement designated as continuous springs, contained in said letters patent numbers 238,100 and 238,101, and called in some parts of said specifications "spiral metal springs, arranged in groups in such tubes, the springs of the several groups being made continuous," he, this defendant, denies that the said Simon Florsheim or the said Ball ever were or are the true and original inventor or inventors thereof, but he avers that the same had been, before the application of the said Florsheim for a patent therefor, as above stated, patented to other persons, and that the same had been known, sold, and
32 in public use in this country since the year 1866, all which facts were at the time of said Florsheim's application for letters patent therefor, as hereinbefore stated, well known to him, said Florsheim; that at or about the time when this defendant and said Florsheim were making and preparing their application for the letters patent No. 222,082, above mentioned, they, the said Florsheim and this defendant, were experimenting with and making corsets, and experienced a difficulty in the proper adjustment and application of the springs to be used in the manufacture of the same, when said Florsheim, who reads and understands the English language well and fluently, which this defendant (both he and said Florsheim being German) did not, suggested to this defendant that he and this defendant go together to the public library, in the city of Chicago, where published books containing the records and description of patents granted both in England and this country are kept for public examination and inspection, and that perhaps they might, in examining the patent records in said library, find something that would help them out of their difficulty, to which this defendant assented; that accordingly he, defendant, and said Florsheim went to said library and said Florsheim commenced an examination and perusal of said patent records; that after some examination said Florsheim remarked, I think here is just the thing, and commenced reading to defendant the record of a patent issued in England to James Miller & Son in the year 1866 and numbered 3451, which patent and the specifications annexed thereto fully

described the construction, application, and use of the same continuous springs claimed by said Florsheim to be his original invention and which are covered by and contained in said patent above
32½ named, numbered 238,100 and 238,101, being the same mentioned and described in the complainants' bill of complaint in this cause; that on hearing the same read by said Florsheim he, this defendant, being familiar with manufactures of this character, at once made up his mind that they had found what they were looking for, and told said Florsheim that the discovery they made was precisely what they had been seeking for and was all they needed; that immediately thereafter he, this defendant, commenced experimenting upon the information so received, and procured to be made a machine for making such continuous springs to be used in connection with the invention and improvements secured by said letters patent No. 222,082, so issued jointly to this defendant and said Florsheim, as aforesaid, in the construction of corsets; that during this time the said Florsheim, who was no mechanic and had none or but little knowledge or experience in mechanical or manufacturing operations, was very frequently in at defendant's house and shop watching defendant in his labor and seeking information and instruction from him in regard to his success in making, adopting, and using such continuous springs and applying them to the manufacture of corsets; that during this time said Florsheim stated and admitted to this defendant and in the presence of this defendant's family that he, said Florsheim, was entirely ignorant of the making, construction, application, and adaptability of such continuous springs in the construction of said corsets, and repeatedly requested defendant to instruct him therein, which defendant did, and that said Florsheim told defendant again and again that before the examination of said patent records in the public library
33 of Chicago, as aforesaid, and the knowledge and instructions so given to him by defendant he was and had been in entire and utter ignorance thereof and of all things relating to the same; that all this occurred long before the said Florsheim made his application and before letters patent were issued thereon, Nos. 238,100 and 238,101 above mentioned.

And this defendant, further answering, avers that other British patents, to wit, No. 3894, granted to one Mills in the year 1815; patent No. 4451, granted to one Hancock in the year 1820, also show and describe the material parts of the said pretended invention claimed by said Florsheim under the said two patents, Nos. 238,100 and 238,101, to which said British patents and to such proof thereof as this defendant may be able to obtain he, this defendant, prays leave to refer; that this defendant and said Florsheim thereafter continued to manufacture corsets together and sell the same, constructed with said continuous springs, until about the time when said Florsheim made his application for letters patent, above mentioned, numbered 238,100 and 238,101, stated in the said bill of complaint, and during that whole time said Florsheim never claimed or pretended to be the inventor of said springs, or the making of them,

or the application of the same in the construction or manufacture of corsets or other manufactured articles.

And this defendant, further answering, denies that he has at any time, within the State of Illinois or within the northern district thereof, without right, or in violation of the rights of the complainant, or by way of any infringement of any of the rights of the said complainant alleged to have been granted or secured to them by said letters patent numbered 238,100 and 238,101 or either of them, infringed upon said patents; and he denies that he has
34 infringed upon any rights of the said complainants, as in their said bill of complaint is alleged.

And this defendant, further answering, says that he has since the issuing of the said letters patent to him and said Florsheim jointly, as aforesaid, on the said 25th day of November, 1879, made and sold three dozen of said corsets and no more; and this defendant insists, and will maintain and prove as this honorable court shall direct, that the said Florsheim is not and never was the true and original inventor of said "improvement in corsets," so far as said continuous springs are concerned, and that he, this defendant, has at least an equal right with the said Florsheim and Ball to manufacture said corsets with said continuous springs and the improvements in said patents Nos. 238,100 and 238,101 and each of them contained and specified; and this defendant denies that the complainants are entitled to the relief or any part thereof in the said bill of complaint demanded; and he denies all the equities claimed in said bill, and prays that he may be hence dismissed with his reasonable costs and charges in this behalf most wrongfully sustained.

GUSTAV SCHILLING,
By FLOWER, REMY & GREGORY,
Their Solicitors and of Counsel.

EXHIBIT "A."

DEPARTMENT OF INTERIOR,
UNITED STATES PATENT OFFICE.

To all persons to whom these presents shall come, Greeting:

This is to certify that the annexed is a true copy from the records of this office of the letters patent granted Gustav
35 Schilling and Simon Florsheim November 25, 1879, No. 222,082, for improvement in corsets.

In testimony whereof I, E. M. Marble, Commissioner of Patents, have caused the seal of the Patent Office to be affixed this
[SEAL.] eleventh day of May, in the year of our Lord one thousand eight hundred and eighty-two, and of the Independence of the United States the one hundred and sixth.

E. M. MARBLE,
Commissioner.

No. 222,082.

The United States of America to all to whom these presents shall come:

Whereas Gustav Schilling and Simon Florsheim, of Chicago, Illinois, have presented to the Commissioner of Patents a petition praying for the grant of letters patent for an alleged new and useful improvement in corsets, a description of which invention is contained in the specification, of which a copy is hereto annexed and made a part hereof, and have complied with the various requirements of law in such cases made and provided; and whereas, upon due examination made, the said claimants are adjudged to be justly entitled to a patent under the law:

Now, therefore, these letters patent are to grant unto the said Gustav Schilling and Simon Florsheim, their heirs or assigns, for the term of seventeen years from the twenty-fifth day of November, one thousand eight hundred and seventy-nine, the exclusive right to make, use, and vend the said invention throughout the United States and the territories thereof.

36 In testimony whereof I have hereunto set my hand and caused the seal of the Patent Office to be affixed, at the city of Washington, this twenty-fifth day of November, in the [SEAL.] year of our Lord one thousand eight hundred and seventy-nine and of the Independence of the United States of America the one hundred and fourth.

A. BELL,
Acting Secretary of the Interior.

(Countersigned:)
H. E. PAINE,
Commissioner of Patents.

UNITED STATES PATENT OFFICE.

GUSTAV SCHILLING and SIMON FLORSHEIM, of Chicago, Illinois.

Improvement in Corsets.

Specification forming part of Letters Patent No. 222,082, dated November 25, 1879; application filed March 10, 1879.

To all whom it may concern:

Be it known that we, Gustav Schilling and Simon Florsheim, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful improvement in corsets; and we do hereby declare the following to be a full, clear, and distinct description thereof, which will enable others skilled in the art to which this invention appertains to make and use the same, reference being had to the accompanying drawings, which form part of this specification.

The object of our improvement is the production of a corset specially adapted for use in warm weather and in warm rooms and

under circumstances of work or exercise which will produce
37 free perspiration, and to that end we have adopted a construction and an arrangement of parts which will insure a constant, uniform, — accurate fit of the corset to the wearer under all changes of her position without chafing or annoying in any part, and will be cool, comfortable, and exceedingly durable.

To that end India-rubber elastic portions are dispensed with, as these soon lose their elasticity and durability in the presence of animal heat and perspiration, and instead of such, metallic spiral springs incased in puckered cloth tubes are used. For the same purpose the corset, instead of being made in two parts, as usual, is made practically of a single part, the central back portion being made of the elastic material above referred to, inserted in the form of a piece with substantially parallel sides, so as to give an equal degree of elasticity to all parts of the corset. For the same purpose also gores of the elastic material above referred to are inserted at the sides, where an annoying pressure is ordinarily given by corsets to the hip-bones, and shoulder-straps of the same elastic material are provided in order to hold the corset, which should not fit tightly in any part, from a tendency to slip down under some circumstances.

The novelty of our invention consists in the application to a corset, constructed substantially as described, of shoulder-straps composed of wire springs in puckered tubes, substantially as described, and *of* the entire corset is a new article of manufacture, having the elastic back, hip gores, and shoulder-straps, all as more fully described. In order that those skilled in the art may understand how to make our improved corsets, we now describe the same minutely, having reference to the drawings, in which—

Fig. 1 is a front view of the corset; Fig. 2, a rear view
38 of the same, and Fig. 3, a longitudinal central section through one of the elastic portions, the same being on an enlarged scale.

Similar letters denote corresponding parts in each figure.

A A represent the two similar sides or sections of a corset made of the usual general form, and having longitudinal whalebone ribs and buttoning clasps in front, made in an ordinary manner. C is an elastic strip with substantially parallel sides interposed between the sections A A and uniting them at the back. D D are elastic gores inserted in the lower portions of the sides, so as to cover the hip-bones, and E E elastic shoulder-straps, either attached at both ends to the upper sides of the corset or arranged to button at one end.

The elastic strip C is composed of two pieces of cloth of about double the width of the space it is intended to occupy when puckered. Across the two pieces, placed one above the other, rows of stitching are run, so as to form tubes between each two of the seams, of a size to receive and hold quite closely the metallic spiral spring which is to be inserted. These spring tubes are arranged in series of three or four, so as to leave spaces between the groups of tubes. Into these tubes, previously puckered to the proper degree, are inserted small springs *d*, preferably of brass wire, coiled spirally, with

the coils in contact, and each of the required length, and fastened at the ends to the cloth, or fastened both to the cloth and the edge of the sections A A.

The springs in the gores D D differ only from these already described in that they necessarily differ in length to conform to
39 the angular sides of the gores, and are not put in groups, as preferably they are not put in groups in the shoulder-straps E E.

It will be observed that these metallic springs thus interposed in the thin puckered fabric can be extended only the length of the tube itself, which is properly proportioned in the first instance, and therefore such springs cannot receive an injurious tension, and therefore will be very durable, and from their arrangement in groups in the back portion the corset there will be left vacant spaces, which will scarcely obstruct the transpiration at that part of the body; that, from the shape of the elastic portion C, there will always be an equal capacity to resist tension at every point and in every movement of the body; that the hip gores will press with elastic force over the hip-bones and will not chafe or annoy, and that the elastic shoulder-straps will enable a corset uniformly more loose than usual to be worn without danger of its slipping down.

The springs themselves will be durable, not being affected by the heat or moisture of the body, and the whole corset thus will be durable, and in addition cool and comfortable, and thereby not become stained, and serve by its stains to injure the dress which covers it.

We are aware that it is not original with us to use metallic wire coiled springs inclosed in cloth tubes in corsets, or to make a corset practically in one piece by inserting an elastic portion in the back, or to use elastic gores in corsets at the hips, or to provide corsets with partially elastic shoulder-straps, and we disclaim all such inventions, broadly; but, as we believe that we have certain novelties in our corset for which we are entitled to letters patent,

We do claim as new and our invention—

40 1. In combination with a corset, the elastic shoulder-straps composed of wire springs in puckered tubes throughout the entire length, substantially as described and shown.

2. As a new article of manufacture, the corset described and shown, having an elastic back piece, elastic hip gores, and elastic shoulder-straps, all constructed and arranged substantially as specified.

GUSTAV SCHILLING.
SIMON FLORSHEIM.

(Witnesses:)
EMIL H. FROMMANN.
ERNST JEBSEN.

(Endorsed:) Filed Nov. 18, 1882. W. H. Bradley, clerk.

41 Afterwards, to wit, on the seventeenth day of November, in the adjourned October term of said court, 1885, in the record of the proceedings thereof in said entitled cause, before Hon. Henry W. Blodgett, district judge, is the following entry, to wit:

SIMON FLORSHEIM
vs.
GUSTAV SCHILLING. } In Chancery.

Now come the parties, by their solicitors, and this cause, being set for hearing this day on pleadings and proofs, now comes on to be heard, and, after hearing the arguments of counsel in part, further hearing herein is hereby postponed until to-morrow morning.

42 Afterwards, to wit, on the eighteenth day of November, in the adjourned October term of said court, 1885, in the record of the proceedings thereof in said entitled cause, before Hon. Henry W. Blodgett, district judge, is the following entry, to wit:

SIMON FLORSHEIM
vs.
GUSTAV SCHILLING. } In Chancery.

Now again come the parties, by their solicitors, and this cause again comes on to be heard upon the pleadings and proofs, and, after hearing the concluding arguments of counsel, the court takes the same under advisement.

Afterwards, to wit, on the eleventh day of January, 1886, there was filed in said clerk's office the opinion of Judge Blodgett in said entitled cause; which said opinion is in the words and figures following, to wit:

43 United States Circuit Court, Northern District of Illinois.

SIMON FLORSHEIM and THOMAS H. BALL
vs.
GUSTAV SCHILLING.

JANUARY 11, 1886.

BLODGETT, *J.*:

The complainants by this bill seek an injunction and accounting for the alleged infringement by defendant of patents No. 238,100, granted by the United States to Simon Florsheim and Thomas H. Ball February 22, 1881, for a "corset," and letters patent No. 238,101 grant- to the same parties on the same date, for an "elastic gore or gusset for wearing apparel," the invention in both patents appearing to have been made by the complainant Florsheim, and the patent issued to himself and Ball.

No. 238,100 is for a corset constructed with an elastic section extending from the top to the bottom, the mode of construction and advantages of which are explained in the specifications as follows:

"The corset is composed of two separable parts, A B, which are secured together at the front, as usual, by studs and loops, and at the back have eyelets for receiving lacings. The central sections C D at the sides of the corset, which extend from under the arms
44 down over the hips, instead of being made as usual, are constructed of two layers or thicknesses of cloth or other ma-

terial, which thicknesses are sewed or woven together a portion of their width to form horizontal tubes, which receive and cover small closely coiled spiral springs of metal. The pieces of cloth from which the sections C D are formed are considerably wider than such sections when completed, so that when puckered laterally they will be of the desired width. The tubes are located in the center of the sections and do not extend to the edges of the same, so that margins will be left at the ends of the tubes, which margins are lapped with the adjoining sections of the corset and stitched thereto. The springs are arranged in groups, as shown, with puckered spaces of cloth between such groups. The number of springs composing the groups will vary according to location, so as to give the requisite stiffness and elasticity. Thus at the top and bottom of the elastic side sections the groups of springs should not be made so stiff as at the waist of the corset. The springs are passed through the tubes, which are puckered over the springs to the desired extent. The springs terminate at the ends of the tubes, and are secured to the thicknesses so as to leave clear margins of unpuckered cloth outside of such springs. This is a great advantage, since it enables the elastic sections to be stitched into the corset on a sewing machine, which cannot be well done when the ends of the spring are secured by the same stitching, since the needle strikes the coils of the spring and either cuts the spring or breaks the needle. Herein also is one of the peculiar advantages over rubber cloth. Rubber cloth, when stitched into a corset, always has more or less of the rubber cords cut off by the needle, and it is thus greatly weakened, while in my corset the elasticity of the sections cannot be effected by the stitching.

"The cheapest manner of arranging and securing the groups of springs to secure the above advantages is by making all the groups of each section from a single continuous length of metal spiral spring. The spring is secured at its upper end by stitches passed through the thickness at the end of the upper tube and inclosing one or more coils of the spring. The spring is then passed back and forth through the tubes, which are puckered at the same time. After forming one group the spring extends down between the thicknesses to the next group, and so on till the lowest group (or the uppermost group, as the case may be) is finished, when the spring may be cut off, if there is more than required, and will be secured by stitches passed through the thicknesses. The elastic section can then be placed in the corset, the plain margins being lapped with the edges of the adjoining sections and secured by lines of machine stitching.

"By having the elastic sections in the sides of the corset the corset can adapt itself to different forms without the use of other elastic sections or gores, and elastic side sections, by extending the entire length of the corset from under the arms down over the hips, allow the front and back of the corset to expend and contract from these central side points independently of each other and more easily and freely than when a back elastic section is used."

This patent has three claims, which are as follows:

"1. In a corset, an elastic section composed of two thicknesses of cloth or other material, *a b*, having tubes *c*, in combination with the spiral metal springs E, inclosed by such tubes and arranged in groups to regulate the elasticity of the section, such groups being all composed of a single continuous spring passed back and forth through the tubes and secured at its ends, substantially as described and shown.

"2. An elastic section or gore composed of material having tubes extending only part way across the same, and plain margins outside of said tubes, and spiral metal springs arranged in groups in such tubes, the springs of the several springs being made continuous, substantially as described."

"3. A corset laced at the back and having the elastic side sections C D extending from under the arms down over the hips, each of such sections being composed of material having puckered tubes extending part way across the same, and plain margins outside of said tubes, and spiral metal springs arranged in groups in such tubes and made continuous, substantially as described and shown."

47 Patent No. 238,101 is for an elastic gusset or gore for wearing apparel, and describes a gore or gusset made by forming tubes in the central portion of two strips of cloth or leather laid together by stitches or by weaving such tubes into the cloth fabric, into which spiral tubes metal springs are run so as to draw or pucker the central portion of the cloth or leather, thereby making the central portion of the cloth elastic to the extent of the elasticity of the spring, leaving a non-elastic end, edge, or margin by which the gore or gusset can be fastened with the garment where it is to be used.

This patent has four claims, all covering a gore, gusset, or section for wearing apparel constructed, as described, of metal springs inclosed in a covering material and puckered over such springs, the springs not extending to the edges of such covering and being stayed at their ends in the tubes.

The defenses are—

1. That there is no patentable novelty in either of these inventions.

2. That the defendant, Gustav Schilling, was the first inventor of the devices in question instead of the complainant Florsheim.

The English patents of John Mills, of March 14, 1815, shows elastic sections or gores in corsets made of cloth with tubes stitched into the same, into which are inserted metal spiral springs so as to pucker the cloth over the springs and give the sections the required elasticity. The patentee in his specifications says:

48 "Fig. 1 is a representation of a stay, composed of the same material as common stays, with the introduction of an elastic or expansive portion or slit down the middle, which will dilate — expand by a more than ordinary pressure or force being exerted, as in the case of breathing or exercise of the arms. This flexible portion is composed of springs either of brass, copper, or iron wire or of any other matter or thing capable of producing sufficient elasticity, but this which I recommend is small brass wire worm springs,

which extend [expand] by a small degree of force. These I place close together in runners or spaces stitched in between two pieces or layers of silk, satin, or other fit material puckered or quilted loosely to give room for expansion, the ends of the springs and their covering of silk, satin, or other matter on them sewed or otherwise fastened to and between the two half pieces of the stay previously made of *of* the usual material."

Here we have an elastic section for a corset, the elasticity being secured by spiral springs transversely set into the material of which the section is made, and this section extending from the top to the bottom of the corset either at the back or front, or both.

In the American patent granted February 1, 1876, to Mary J. C. Van Nostrand a corset is shown with elastic sections at the sides extending from under the arms to the hips or bottom of the corsets, this section being made of elastic webbings, the elastic ma-
49 terial being presumably India rubber. The elastic sections in this corset are located in the same place and perform the same function as those shown in the complainants' corset.

In the English patent to Miller, of December 31, 1866, elastic gussets suitable for use on boots, stays, and for other purposes are described, where the elastic material used is India-rubber strips run continuously back and forth in tubes formed in the cloth. The patentees say: "According to our invention we secure the vulcanized India-rubber springs between two pieces of woven fabric, leather, or other material by stitching with the sewing machines, the stitches running in parallel lines and passing through the two pieces of fabric or material between the India-rubber springs, and the springs, in place of being each a separate piece, are in one piece. The length of vulcanized India-rubber cord at the end of each traverse across the gusset, being turned around and caused to return parallel to itself. Thus the liability of the India rubber to slip and work out of the gusset is much reduced. When gussets made in this manner are worked into boots or other articles the stitches by which they are secured are passed through a margin on each side of the gusset and not through the India-rubber part of the gusset, as heretofore.

"We first cut the material—leather, silk, cotton, or any other woven fabric—and the lining to the size required of the gusset when
50 it is finished and for leaving the required margin. We then turn over the top edge and baste or tack it down to the lining. We then commence to stitch with a sewing machine a series of rows in parallel lines transversely across the gusset, the stitching passing through the two materials, commencing at the top, and so on from row to row until the whole of the gusset is stitched. The distance between the rows of stitching will depend on the thickness of the India-rubber thread to be inserted."

They then describe the manner in which they pucker the cloth, and a machine for doing puckering, and proceed:

"We then insert with the bodkin or needle the thread or strand of India rubber, which is in one length. We commence at the top cavity to insert the India-rubber thread or cord and follow back in the next row or cavity, causing it to return parallel to itself, and so

on the same from row to row until the whole of the cavities are filled with India rubber. We then pull back the margin that is left as large as required and tack it down with an ordinary needle, and the gusset is ready for use."

There can be no doubt that there is described in this patent a gusset with non-elastic margins, edges, or ends, and the only conceivable difference between this device and the elastic sections in the complainants' corset patent is that an India-rubber spring is used instead of a metal spiral spring, and the springs in this
51 English patent are not grouped. This patent seems to fully instruct any person how to make a section like the section shown in the complainants' corset patent with India-rubber springs. It does not seem to me that there is any patentable difference between the gussets described in the English patent of Miller and the sections in the complainants' corset patent. The substitution of one material for another is not a patentable difference even where a superior article is produced by such substitution.

Hotchkiss *vs.* Greenwood, 11 How., 248.
Hicks *vs.* Kelsey, 18 Wall., 670.
Terhune *vs.* Phillips, 99 U. S., 593.

In the corset patent the patentee gives his reasons for grouping the springs. He says: "The springs are arranged in groups, as shown. * * * The number of springs composing the group will vary according to location, so as to give the requisite stiffness and elasticity. Those at the top and bottom of the elastic side sections—the groups of springs—should not be made so stiff as at the waist. * * * It is essential also that the springs be arranged in groups, since if placed contiguous throughout the elastic sections the corset would be much too heavy and expensive, and such sections would be too stiff at some points and not stiff enough at others."

Here is a mere mechanical reason given for grouping these springs clearly applicable to the change of material and the use to
52 which the gusset or section is applied. Were a good mechanic to attempt to apply the Miller gusset or gore to a corset in the manner shown in the complainants' corset patent, where an unequal degree of elasticity is required at different points, there can be no doubt that he would provide for the inequality of elasticity by placing his rubber springs closer together or farther apart, which would not require inventive ability, but mere mechanical skill of adaptation.

With the art of corset-making so far developed in the direction of compl'ts' device as is shown by the elastic sections of Mills and Van Nostram, and with the Miller section showing continuous springs and non-elastic margin, it would seem that all complainant did in his corset patent was fully anticipated in the older art. The substitution of wire for rubber makes the Miller gusset in all respects elastic sections, such as is shown in complainants' corset, except that the springs are not grouped, and this is not a patentable difference, as the only advantage of the grouping is to make the sections less rigid at some points than at others.

As to complainants' gusset or gore patent it seems to me that all the elements of this patent are found in the English patent of Miller just considered. The only difference is the material of the springs, and that I have already said in the discussion of the first patent is not a patentable difference. Miller's patent shows a gusset
53 with tubes into which the springs are inserted and upon which the cloth or gusset material is puckered and margins for attaching the gusset to the garment where it is to be used or applied. The old Mills patent of 1815 showed a gusset with metal springs inserted in tubes and the cloth puckered over those tubes so as to provide for the expansion, but the patent did not expressly provide for a plain or a non-elastic margin, and all that Miller did in 1866 over Mills in 1815 was to put a non-elastic margin upon the Mills gusset, and all that Florsheim did was to substitute metal springs in place of the rubber springs shown in the Miller patent. This cannot amount to invention in the then state of the art. Coiled-wire springs for a gusset or gore were old, and gussets with non-elastic margins were old and well known long before Florsheim applied for his patent, and the proof shows that he examined the Miller patent before he applied for the patent now under consideration, so that he must have known that the field was already covered before his device was produced. It is urged on the part of complainant that the complete device as described in each of these patents is not found in any one of the older devices, but, as I have already said, I find enough in the Miller patent alone to meet and anticipate both these patents. When Miller had shown how to make an elastic gusset or section for wearing apparel with
54 non-elastic margins there was no invention in applying such a gusset or section to a corset when corsets had already been made with elastic sections, although these older sections did not have non-elastic margins, as it did not require invention to put Miller's elastic sections into Mills' or Van Nostrand's stays.

There is a large mass of testimony in the case bearing upon the questions involved in the second point of the defense, but under the view I take of the question of novelty it is unnecessary for me to consider this testimony.

A decree may be prepared finding the complainants' patent void for want of novelty and dismissing the bill for want of equity.

Coburn & Thacher, for comp'ts; Offield & Towle, Wm. Zimmerman, West & Bond, J. C. Chumasero, for def'ts.

(Endorsed:) Filed Jan'y 11, 1886. Wm. H. Bradley, cl'k.

55 On the same day, to wit, on the eleventh day of January, 1886, in the December term of said court, 1885, in the record of the proceedings thereof in said entitled cause, before Hon. Henry W. Blodgett, district judge, is the following entry, to wit:

Decree.

SIMON FLORSHEIM and THOMAS H. BALL
vs.
GUSTAV SCHILLING. } In Chancery.

Now again come the parties, by their solicitors, and the court, having considered the matters submitted herein, finds that the defendant does not infringe as complained of in the bill herein, and that said complainants' patent is void for want of novelty. It is thereupon ordered that said bill be dismissed for want of equity at complainants' costs, and that execution issue therefor. Said complainants, by their solicitors, pray an appeal herefrom to the Supreme Court of the United States, which is allowed upon their filing an appeal bond herein, according to law, in the penal sum of one thousand dollars, with surety to be approved by the clerk.

56 Afterwards, to wit, on the tenth day of May, in the adjourned May term of said court, 1886, in the record of the proceedings thereof in said entitled cause, before Hon. Henry W. Blodgett, district judge, is the following entry, to wit:

SIMON FLORSHEIM and THOMAS H. BALL
vs.
GUSTAV SCHILLING. } In Chancery.

A motion for a rehearing of said cause and to set aside the order made therein finding the patents declared on in the bill of complaint involved, and that the bill be dismissed, and also for setting aside the order granting an appeal, was heard and the motion overruled; but it is ordered that the order in reference to the finding both patents void be modified as to patent number 238,101; that as to the patent the order apply only to the first two claims; that the complainants are hereby granted an appeal in this cause to the Supreme Court upon filing a bond within sixty days herefrom in the penal sum of one thousand (1,000) dollars conditioned to pay costs, with sureties satisfactory to the court.

57 United States Circuit Court, Northern District of Illinois.

SIMON FLORSHEIM and THOMAS H. BALL
vs.
GUSTAV SCHILLING. } In Equity.

Stipulation.

It is hereby stipulated by and between the parties hereto that the testimony in the above-entitled cause may be taken by either party, before any notary public of the county where the evidence is taken, in the same manner and with the same effect as if taken before a

special examiner, duly appointed by the court, upon giving reasonable notice of their intention so to do.

COBURN & THACHER,
Complainants' Solicitors.
FLOWER, REMY & GREGORY,
Defendant's Solicitors.
JNO. C. CHUMASERO,
Defendant's Counsel.

Chicago, July 25, 1882.

58 United States Circuit Court, Northern District of Illinois.

SIMON FLORSHEIM and THOMAS H. BALL
vs.
GUSTAV SCHILLING. } In Equity.

Notice.

Messrs. Flower, Remy & Gregory, defendant's solicitors.

GENTLEMEN: Please take notice that on Friday, July 28th, 1882, at 10 o'clock in the forenoon, we shall proceed to take testimony on behalf of complainants in the above-entitled cause, before Jno. C. MacGregor, a notary public, or other competent officer, at our offices, Ashland block, Chicago, Illinois.

The taking of testimony will continue from day to day until completed.

You are invited to be present and cross-examine, if you see fit.

COBURN & THACHER,
Solicitors for Complainants.

Chicago, Ill., July 25, 1882.

Service of above notice, by copy, acknowledged this 25th of July, 1882.

FLOWER, REMY & GREGORY,
Defendant's Solicitors.

59 United States Circuit Court, Northern District of Illinois.

SIMON FLORSHEIM and THOMAS H. BALL
vs.
GUSTAV SCHILLING. } In Equity.

Pursuant to notice hereto attached, met at the office of Coburn & Thacher, Ashland block, Chicago, Illinois, this 28th day of July, 1882, to take testimony on behalf of complainants in the above-entitled cause.

Present: Lewis L. Coburn, Esq., on the part of complainants, and Jno. C. Chumasero, Esq., on the part of defendant.

Whereupon the following proceedings were had before me:

JOHN NUVEEN, a witness produced on the part of complainants, being first duly sworn to testify the truth, the whole truth, and

nothing but the truth in said cause, in answer to interrogatories propounded to him by counsel for complainants, testified -- follows:

Q. 1. What is your name, age, residence, and occupation?

A. John Nuveen; fifty-three years; 920 Milwaukee avenue, Chicago, Illinois; dry goods merchant.

Q. 2. Are you acquainted with Gustav Schilling, the defendant in this cause?

A. Yes, sir; I am.

Q. 3. Do you know of his selling any corsets or having any for sale?

A. Yes, sir.

Q. 4. When was it?

A. It was about half a year ago.

60 Q. 5. Where was it?

A. At my place of business, 920 Milwaukee avenue, Chicago, Illinois.

Q. 6. Please look at this corset now shown you and state if you recognize it and know anything about it, or corsets like it, in connection with Gustav Schilling, the defendant in this case.

A. On the box is my mark. The corset is similar to that what I had; don't know if it is the very same—it is similar to it—to that what I bought from Mr. Schilling.

Q. 7. Did Mr. Schilling sell you other corsets like this—the one shown you—about a half year ago at your place of business on Milwaukee avenue; and, if so, how many?

A. Yes, sir. I don't know exactly. About half a dozen.

Counsel for complainants offers in evidence the corset which has been shown this witness, and the same is marked "Complainants' Exhibit Defendant's Corset, Jno. C. MacGregor, notary public."

Introduction of this exhibit objected to on the ground that there is no sufficient evidence of identification.

Q. 8. If the corsets which Mr. Schilling sold to you were any different from this corset marked "Complainants' Exhibit Defendant's Corset," state in what respect it differs from them.

A. Well, sir, the outside appearance is the same, but the inside work I cannot tell.

Q. 9. Is it your best judgment and belief that this corset which you now have in your hand is one of the identical corsets which Mr. Schilling sold you at the time above stated?

61 Question objected to on the ground that it is leading and as a cross-examination of the counsel's own witness.

A. I did not examine the corsets very close. I did not cut them open to see how the springs were fixed.

Question 9 re-read.

A. Well, I have given answer that I did not examine the corsets very close, so that I cannot give an opinion about it.

Q. 10. Did you sell one of those corsets which Mr. Schilling sold to you to this gentleman (pointing to Mr. Thomas H. Ball)?

A. I sold a corset I bought of Mr. Schilling to a gentleman; but cannot state if that is the gentleman (pointing to Mr. Ball).

Q. 11. What did Mr. Schilling say to you about those corsets that he sold to you?

Question objected to as indefinite in not stating the time or occasion.

A. He had made gloves in the old country with such springs as he had now in his corsets, and claimed it to be his own invention.

Q. 12. Did he say anything as to what kind of springs they were, and who made the corsets that he sold you?

A. I really don't remember now.

Q. 13. Did you understand, from what he said, whose corsets they were and who made them?

Objected to as incompetent, that he must be asked to give the language, or the substance of it, and not his understanding; and also it is leading.

62 A. They were made for him by another party.

Cross-examination by counsel for Schilling:

C. Q. 14. Mr. Nuveen, about how long have you known Mr. Schilling?

A. Not before I bought the corsets from him.

C. Q. 15. And that, you think, was about a half a year ago. Can you give the month?

A. No, sir; I have it in my book, but not in my mind.

C. Q. 16. What season of the year was it?

A. I guess it was in the winter.

C. Q. 17. Did he bring the corsets to your store, and was there anybody with him when he came there?

A. Yes, sir; but he was alone.

C. Q. 18. How many corsets did he bring you then, and had you conversed with him before about corsets?

A. About half a dozen. I never talked with him before about corsets.

C. Q. 19. Look at this corset, "Complainants' Exhibit Defendant's Corset," and tell me whether you can swear upon your oath whether you ever saw that corset before?

A. There is no mark on it by which I can recognize it, and I cannot swear that I ever saw it before.

C. Q. 20. You say that box from which the corset was taken has your mark. What particular mark do you refer to as appearing on the box?

A. It is my cost and selling mark which I have made with my own hands.

C. Q. 21. Have you other boxes of the same kind—with the same marks—in your store?

A. I had, in the commencement of the week, one box and corset left. I don't know if it is sold now or not.

63 C. Q. 22. Now state when Mr. Schilling spoke to you about its being his invention—all he said upon the subject and all the conversation as to his being the inventor, and what led to that conversation.

A. The first idea he had to make such a corset came in his mind as his wife, wearing another corset, could not stoop down to take up anything from the floor, and so he told her he would make her a corset in which she could move very easily and stoop down without trouble.

C. Q. 23. When did he say he made that invention, if at all; how long before you saw him?

A. I don't remember if he told me any time.

J. NUVEEN.

Subscribed and sworn to before me this 28th day of July, 1882.

JNO. C. MACGREGOR,
Notary Public.

THOMAS H. BALL, the next witness, being first duly sworn, testified as follows:

Q. 1. What is your name, age, residence, and occupation?

A. Thomas H. Ball; age, 36; residence, Chicago, Illinois; occupation, manufacturer of corsets.

Q. 1½. Look at this corset now shown you, marked "Complainants' Exhibit Defendant's Corset," and state what you know about it.

A. I was told by one of my salesmen that Mr. Nuveen, at 920 Milwaukee avenue, had corsets on sale similar to ours that he said he had bought from Mr. Schilling. I called at Mr. Nuveen's place of business, on the strength of that information, and bought
64 from one of Mr. Nuveen's clerks the corset I now have in my hand; after which transaction, in conversation with Mr. Nuveen, he told me that he had bought this corset and others similar of Mr. Schilling.

Counsel for defendant hereby states that he reserves the right of moving to strike out by the court the whole of the foregoing answer, except that part of it stating the actual purchase of the corset from Nuveen's clerk, on the ground that the same is wholly incompetent for any purpose whatever.

Q. 2. About when did you make this purchase of the corset you have in your hand?

A. I think it was the latter part of May, this year.

Q. 3. How long have you been engaged in the manufacture of corsets?

A. About a year and a half.

Q. 4. Are you manufacturing patented corsets; and, if so, of whose invention?

A. I am; the invention of Simon Florsheim.

Q. 5. Is any one associated with you in the manufacture of those corsets; if so, who?

A. Yes, sir; Herman Prenzlauer and Simon Florsheim.

Q. 6. Have you a corset which you manufacture; and, if so, will you produce the same?

A. I have; yes, sir. (Witness here presents a corset.) Here it is.

Counsel for complainants offers in evidence the corset produced by the witness, and the same is marked "Complainants' Exhibit Complainants' Corset, Jno. C. MacGregor, notary public."

Also duly authenticated copy of letters patent No. 238,100,
65 dated February 22d, 1881, issued to Simon Florsheim, assignor of one-half to Thomas H. Ball, for a corset, and the same is marked "Complainants' Patent, Exhibit No. 1, Jno. C. MacGregor, notary public."

Also duly authenticated copy of letters patent No. 238,101, dated February 22nd, 1881, issued to Simon Florsheim, assignor of one-half to Thomas H. Ball, for elastic gore, gusset, &c., for wearing apparel, and the same is marked "Complainants' Patent, Exhibit No. 2, Jno. MacGregor, notary public."

Q. 7. Please look at these letters patent and state whether you are manufacturing corsets under them, giving a history of your business, in general terms, connected with said patent.

A. We are. We commenced our business manufacturing corsets January 1st, 1881, with five employés. We now employ about three hundred; have a capital invested of about sixty thousand dollars; have expended for advertising and other modes for introduction and sale of our goods, including contracts now out for advertising, of about forty-five thousand dollars. Our business for the past two or three months indicates a total sale this year of over three hundred thousand dollars.

Q. 8. Will you state what you know in reference to this corset being a new corset to the trade when you commenced manufacturing it and what you did, if anything, in reference to obtaining certificates concerning its superior qualities over other corsets then known?

Question objected to on the ground that part of it seeks to
66 prove the novelty of the invention, which is a matter of reply, and also it is immaterial what they did by way of procuring certificates.

A. I have been selling corsets of various makes and manufacture and am familiar with the product of various manufacturers for fifteen years, and I never saw or heard of a corset constructed on the principle on which this is made until I met Mr. Florsheim and was shown this. I thought I recognized its novelty and value and entered into an arrangement with him to develope and test it. One of the first steps taken in this direction was to show it to and ask the endorsement of some of our leading physicians on the score of its healthfulness as compared with other corsets. One of these physicians was Dr. W. H. Byford, who laughed at the idea of a physician endorsing a corset, as they did not believe in such things. After some conversation on the subject, he acknowledging that most all ladies would wear them—that if one could be constructed so as

not to injure them it might be worth an endorsement from him—I then put on the corset and showed him its novelty and the merit I claimed for it, and he then said it didn't need his endorsement, that it endorsed itself, and that any lady who valued her health and would wear a corset would necessarily take one of this kind. I then told him I wanted something from him to show such ladies before they saw the corset. He said, You shall have it; the corset deserves it. I then presented to him the endorsement obtained from Dr. James Nevens Hyde, and he wrote beneath Dr. Hyde's endorsement what appears on the cover of this box. (Witness produces box enclosing Complainants' Exhibit Complainants' Corset.) I also obtained other endorsements, as shown on said cover and on this. (Witness here produces circular.)

67 Defendant's counsel reserves the right to move to strike out all the above answer so far as relates to the consultations and conversations with the physicians, and the introduction of the box-cover certificate and the other printed certificate, as wholly incompetent.

Counsel for complainant here offers in evidence the box and box cover in which the corset marked "Complainants' Exhibit Complainants' Corset" was taken, and the same is marked "Complainants' Exhibit Corset Box, Jno. C. MacGregor, notary public."

Also the circular produced by the witness in his last answer, and the same is marked "Complainants' Exhibit Complainants' Circular, Jno. C. MacGregor, notary public."

Counsel for defendant objects to the introduction of the above exhibits as improper and incompetent.

Q. 9. Did you adopt any name for your corset, in connection with these certificates, or otherwise, that you manufactured under these letters patent to which you refer; and, if so, what name?

A. I did. After considerably more study than the occasion would seem to warrant I adopted a satisfactory name for it and called it Ball's health-preserving corset.

Counsel for complainants here offers in evidence a printed circular headed "Opinions of eminent Chicago physicians," recommending Schilling's health-preserving corset of the size and form to fit the top of a corset box cover, and the same is marked "Complain-
68 ants' Exhibit Schilling's Circular, Jno. C. MacGregor, notary public."

Q. 10. Please state in what way or in what you put up your corsets, and if you put the corsets in boxes state whether you label the box covers, and examine this label or circular now shown you, marked "Complainants' Exhibit Schilling Circular," and state in what respect it corresponds with or differs from the labels or circulars which you and those associated with you in the manufacture of corsets under the letters patent to which you have referred above use.

A. We have always put up our corsets in a box similar to the one shown; have always used the same matter as shown on the box

cover (pointing to Complainants' Exhibit Corset Box) as a top label. About three months since we changed the general appearance of our top label, using a large picture of our corset in the center, which makes a label that Schilling's label more closely resembles in general appearance than our label shown in this exhibit—Exhibit Corset Box.

The further taking of testimony is here adjourned until 2 o'clock p. m., Saturday, July 29, 1882, at same place.

SATURDAY, *July* 29, 1882.

Met pursuant to adjournment, and examination of THOMAS H. BALL resumed:

Q. 11. Have you now a box with the label on it such as you referred to in your last answer as being a modification of the one you commenced using when you first joined Mr. Florsheim to
69 manufacture and introduce the health-preserving corset; and, if you have, will you produce the same?

A. I have; yes, sir; that's it (pointing to corset box).

Counsel for complainants here offers in evidence the box just produced by the witness, and the same is marked "Complainants' Exhibit Corset Box No. 2, Jno. C. MacGregor, notary public."

Q. 12. Have you, and those associated with you, any other business than that of manufacturing corsets under the patents granted to you and Simon Florsheim, as above stated, and have any of your firm their entire capital invested in the business of manufacturing these corsets, devoting their entire time to the business?

Question objected to as immaterial.

A. Mr. Florsheim has another business to which he devotes his time. Mr. Prenzlauer, as I understand, has an interest in another business, but devotes his whole time and attention to this. I have no interest in any other business. All the capital I have is invested in this, and I give my whole time and attention to it.

Q. 13. Does your firm manufacture anything else besides corsets, and do you manufacture any other corsets than those you make under the patents above referred to? If so, what, and what other kind of corset?

Question objected to as immaterial.

A. We make nothing but corsets, and no other kind of corsets except those made under these patents.

Cross-examination by counsel for Schilling:

70 C. Q. 14. Mr. Ball, how long have you known Mr. Nuveen?

A. I never saw him before the day I bought this corset from him.

C. Q. 15. You don't mean to say that you bought it of him personally, do you?

A. I mean to say the day I bought it, personally, of Mr. Nuveen's clerk, in his presence.

C. Q. 16. Was Mr. Nuveen present when you bought it?

A. He was.

C. Q. 17. Where was Mr. Nuveen standing at the time you purchased the corset?

A. Nuveen was moving about the opposite side of the store, waiting on a couple of ladies.

C. Q. 18. State what occurred at the time of the purchase—how you commenced it and what was said.

A. I asked the clerk if they had a corset that stretched and was elastic. He said they had, and produced this one. I asked him the price of it. He told me, I think, a dollar and a quarter. I paid him for the corset. After the purchase was complete I asked him if Mr. Nuveen was in. He pointed to the gentleman opposite, saying, That is Mr. Nuveen.

C. Q. 19. What was the name of the clerk from whom you purchased the corset?

A. I don't know; never knew.

C. Q. 20. Did you purchase that corset for use, or for the mere purposes of this suit?

A. I purchased it for use; not to wear; for whatever use I might put it to later.

71 C. Q. 21. Did you have, at the time you purchased it, any particular use in your mind? If so, what was it?

A. I heard that Mr. Nuveen had corsets similar to ours, which he said he purchased from Mr. Schilling. I thought it might be a good thing to have one, so I bought this one to see what it looked like and for whatever other purpose I saw fit to put it to later.

C. Q. 22. Was this purchase made before or after the commencement of this suit?

A. Made before.

C. Q. 23. What did you do with it?

A. I took it back to my place of business, and have kept — there since until I produced it here.

THOMAS H. BALL.

Subscribed and sworn to before me this 29th day of July, A. D. 1882.

JNO. C. MACGREGOR,
Notary Public.

DAVID J. POWERS, the next witness, being duly sworn, testified as follows:

Q. 1. What is your name, age, residence, and occupation?

A. Name, David J. Powers; residence, Chicago; age, 68 years; occupation, mechanical engineer and manufacturer.

Q. 2. What has been your experience relative to new inventions and letters patent which would tend to qualify you to testify as an expert in patent litigated causes?

A. I have been engaged in mechanical pursuits most of my life,

and have had much to do with patents and patented inventions, and have often been called as an expert witness in patent litigation in the United States court.

72 Q. 3. Please examine the letters patent now shown you, marked "Complainants' Patent No. 1," and also letters patent marked "Complainants' Exhibit No. 2," and state whether you have carefully examined the same. And, if so, do you find the specifications and drawings thereof sufficiently full, clear, and explicit to enable a person skilled in the art to make the invention therein described?

A. I have examined said letters patent carefully, and find the same to be explicit and ample to enable one skilled in the art to make the devices therein shown and described.

Q. 4. What do you find to be the mechanism shown and described in the letters patent, Complainants' Patent, Exhibit No. 1, and made especially the subject-matter of the claims thereof, and examine the corset marked "Complainants' Exhibit Defendant's Corset," and state how it compares with or differs from the devices shown and described in the patent, and made especially the subject-matter of the claims thereof, giving your reason for such opinions as you may express?

A. I find the mechanism of the patent to consist of an improved corset, said corset being constructed with an arrangement of elastic bands connecting the front and back portions of the same at the two respective sides. These elastic bands, or sections, as they are termed in the patent, are constructed by the attaching together of two thicknesses of material in such a manner as to form tubes or channels between the two layers of material. Into these tubes are inserted spiral wire springs, arranged in groups, such groups being composed of a single piece of wire passed back and forth through the tubes in such a manner as to leave as few ends of the wire springs as practicable. These groups of springs are placed transversely to the

73 length of the section, and the covering material is puckered upon the springs to the extent that it is desirable that they should be extended or sprung while in use, this puckering of the cloth thus permitting the free action of the spring within a certain limit, and at the same time becoming a limit to its extension further than desired. These groups of springs are so arranged and secured in the sections as to leave a sufficient and proper margin upon the transverse sides of said sections for attaching the same to the edges of the corset without interference with the springs, the object being to construct a section with such a distribution of groups of springs in its several parts as are required to give the proper support and elasticity to the corset, said springs also being continuous in each group, and also between the groups if so desired, and the said groups so placed as to leave a clear margin of the covering material for attachment to the corset, front and back.

On comparing "Complainants' Exhibit Defendant's Corset" with the corset shown, described, and claimed in complainants' patent No. 1, I find it to be constructed in all respects and particulars identically the same as that set forth in the said letters patent. It is a corset with an "elastic section composed of two thicknesses of cloth or other material," corresponding to *a* and *b* of the patent

"having tubes *c*, in combination with spiral metal springs E, enclosed in such tubes and arranged in groups to regulate the elasticity of the section, such groups being all composed of a continuous spring passed back and forth through the tubes and secured at its ends." Thus I find the corset to clearly contain the invention summed up in the first claim of said letters patent. The corset also contains the subject-matter of the second claim of the patent
74 for the reason that it has such an elastic section or gore as is enumerated in said claim, to wit, a section composed of material having tubes extending only part way across the same and plain margins outside of said tubes, and spiral metal springs arranged in groups in such tubes, the springs of the several groups being made continuous.

The corset also contains the devices and combinations of the 3rd claim of the patent, it being a corset placed at the back and having the elastic side sections corresponding to C and D in the patent, said sections being in the same location as those in the patent and composed of material having puckered tubes extending part way across the same and plain margins outside of said tubes and spiral metal springs arranged in such tubes and made continuous.

For the foregoing reasons and from the fact that there is no substantial observable difference thus far discovered between the devices of the patent and "Complainants' Exhibit Defendant's Corset," I am of the opinion that said corset clearly and fully contains the invention set forth and claimed in the three several claims of the said letters patent.

Q. 5. Please examine the letters patent marked "Complainants' Patent, Exhibit No. 2" and state what mechanism you find to be therein shown and described and particularly made the subject-matter of the claim thereof, and examine the corset marked "Complainants' Exhibit Defendant's Corset" and state how it compares with or differs from the mechanism shown and described in the patent and made the subject-matter of the claim, giving your reason for such opinion as you may express.

A. On examining said letters patent No. 2 I find devices
75 therein described and shown to consist of an elastic gore or gusset for use in wearing apparel, and the said device is enumerated in the first claim of the patent as follows: An elastic gore, gusset, or section for wearing apparel, composed of a covering material having tubes, spiral metal springs inclosed by such tubes and not extending to the edges of the covering material and stayed at their ends by such covering material, and an elastic margin outside of the springs, substantially as described.

On comparing Complainants' Exhibit Defendant's Corset with the foregoing enumeration of the elements and combination of the first claim of patent, Exhibit No. 2, I find it to contain and show substantially all of the elements and combination recited in said claim. It has an elastic gore or section composed of covering material formed into tubes, in which are secured spiral metal springs that do not extend to the edges of the covering material, said springs being stayed at their ends by such covering material and said covering material

having an inelastic margin outside of such springs, substantially the same as shown in the patent. True, the springs are somewhat different in form in the corset from those shown in the patent, but this difference does not appear to be material under the language of the claim in the patent.

For the foregoing reasons the corset appears to contain such a gusset, gore, or section substantially as that described and summed up in the first claim of complainants' patent No. 2.

Q. 6. How does the corset compare with the devices shown and described in the complainants' patent No. 2, and made especially the subject-matter of the second claim thereof?

76 A. The corset, on comparison with the second claim of the patent, appears to contain substantially the devices and combination of the second claim of the patent for the same reasons that I have given in reference to the first claim thereof?

Q. 7. Please examine the corset now shown you, marked "Complainants' Exhibit Complainants' Corset," and state how it compares with or differs from complainants' patent, Exhibits Nos. 1 and 2, and also state how it compares with the corset marked "Complainants' Exhibit Defendant's Corset," and if you find any difference between the two corsets, so far as the inventions claimed in the patents are concerned, state what they are.

—. On comparing "Complainants' Exhibit Complainants' Corset" with the devices of patent No. 1 I find it to be constructed in entire conformity therewith and substantially in conformity with the first and second claims of patent No. 2: and on comparing it with "Complainants' Exhibit Defendant's Corset" I find no material difference between them, so far as the patents are concerned, and no difference except some little variation in the grouping of the springs, in no way affecting the general character of the devices. I regard the two corsets as identical in construction, so far as concerns the inventions claimed in the patents.

The further taking of testimony here adjourned until 10 o'clock a. m. Monday, July 31st, at same place.

77 MONDAY, *July* 31*st*, 1882.

Met pursuant to adjournment, and examination of the witness, DAVID J. POWERS, resumed.

Q. 8. What do you find to be the points of merit and utility of the devices patented in complainants' patent, Exhibits No. 1 and No. 2, which has enabled Mr. Florsheim and those associated with him to introduce his health-preserving corset so extensively throughout the country in so short a time?

A. I presume the merits and utilities consist in the simplification and perfecting of the device in its essential points so as to enable a proper distribution of the elastic wire springs in such manner as to secure the precise results desired at the different points and localities of the corset and the more effectual securing of the springs between the covering, with as few abrupt abraiding ends as is found practicable; and, withal, the securing of the springs at their ends or return

points, so as to leave a proper margin for attaching the sections to the corset structure.

The working out of the foregoing points and adapting them to the construction of a corset in a simple and practical manner, so as to produce a corset with a simple, easy, and ample elasticity of a durable and unchangeable character, which would secure an unobstructed respiration and free and easy action for the wearer under any and all circumstances.

The foregoing seems to be the purpose in view and the one accomplished by the patentee, and it was natural when such an improved corset was put upon the market, satisfactory in all respects and healthful withal, that it should be readily appreciated
78 and meet with rapid sale. While perhaps most of the elements of this corset are old and found in other structures of a similar character in one form or another, it appears to have remained for the patentee of patents No. 1 and No. 2 to have elaborated and perfected a corset apparently faultless and as complete and perfect as at the present state of the art can be conceived of.

The practical adaptation of wire springs in lieu of rubber elastic appears to be an important change in all respects, the metal, being more durable, practically never losing its elasticity and odorless in use. It also obstructs perspiration less, and in all respects appears to be a superior article, in the main, for the purpose.

The foregoing appear to me to be the principal reasons why the Florsheim patented corset has, as I understand, met with such extraordinary popularity upon the market. A really good and cheap thing is sure to win as fast as it becomes known and understood.

Cross-examination by counsel for Schilling:

C. Q. 9. Mr. Powers, when did you first examine these corsets—Exhibits Defendant's Corset and Complainants' Corset—for the purpose of ascertaining their respective merits and giving your testimony in regard to them in this case?

A. The latter part of last week—Friday, I think.

C. Q. 10. Did you ever open these corsets or either of them for the purpose of examining with any degree of accuracy their interior construction?

A. No; I have only examined them externally.

C. Q. 11. Then your opinion is formed and your conclusions are derived from a more exterior examination?

A. They are; and I think there is no difficulty in thor-
79 oughly understanding the interior structure of the devices in that way.

Counsel for Schilling reserves the right to move to strike out all after the word "and" as not being responsive to the question.

C. Q. 12. You say that in comparing the construction and make of the two corsets above named—I now use your own language—you discover no observable material difference between the two. Please state what difference you do discover, material or immaterial, in your idea.

A. I discover, as I stated in my direct, an apparently immaterial difference in the grouping of the springs in the sections. In otr words, the corresponding groups in complainants' corset section are not just the same as they are in the section of defendant's; but this difference I regard as mere difference (this part of the answer objected to) of judgment or taste on the part of the maker.

C. Q. 13. State in what way the grouping of the springs in the two corsets differ from each other.

A. Complainants' corset section has eight groups of springs, and defendant's only six. The returns of wire springs in the sections of the two differ in their number in the same locations.

C. Q. 14. You have now spoken about the groupings of the springs in the exterior examination you have made. Do you discover any difference in their formation or construction?

A. I have not, so far, discovered any difference in those respects.

C. Q. 15. Are the groups of springs in both of said corsets continuous or otherwise?

80 A. The groups of springs appear to be continuous in both corsets.

C. Q. 16. You say they appear to be continuous. Can you swear positively that they are?

A. I could not without further examination, although I have no doubt of it whatever.

C. Q. 17. Is your opinion, whatever it is, on this subject formed from a sense of feeling or vision?

A. It is formed upon both a sense of feeling and vision.

C. Q. 18. That is from feeling and looking at them on the outside of the corset?

A. Yes; in that manner; holding the corsets up to the light and looking at them.

C. Q. 19. Are you acquainted with the corsets in use and on the market other than these identical corsets in question?

A. I am not, particularly, except so far as I have observed those ordinarily worn, without those elastic sections.

C. Q. 20. Are you sufficiently acquainted with them to state in what respect they differ in their construction from these corsets?

A. I stated in my last answer that I was not familiar with any corsets in use except those having no elastic sections or other provisions for their expansion or contraction after they were once laced to their usual place.

C. Q. 21. Mr. Powers, do you not believe, after all, that the alleged superiority of the corsets in question over other corsets is the substitution of these groups of metallic or wire springs in place of rubber springs?

A. That may be one reason for the alleged superiority; but I understand that their superiority consists in the manner in

81 which the springs are applied and adapted. I consider the wire elastic much better for the purpose, as I have already stated, than rubber would be, however applied.

C. Q. 22. Then does not the substitution of the wire springs for

rubber form the most material part in the foundation of the alleged improvement?

A. I understand that the substitution of the wire in the manner in which it is applied, secured, &c., to constitute a material part of the device or invention, and the most material part.

C. Q. 23. Did you ever know of the substitution of wire springs for rubber being used in corsets before these?

A. I have had no knowledge of that fact, except as set forth in patent No. 1, which refers to an improvement upon a prior one.

C. Q. 24. — your answer to question 8 of your direct examination you give a long, learned, elaborate, scientific, and glowing description of the transcendent merits and peculiar superiorities of these corsets, and allege those qualities as constituting an important factor in their extensive sale. Do you consider or believe that a lady wanting to purchase a corset would first take into particular consideration the various merits and qualities of this particular corset as so eloquently described by you in that answer?

A. I think she would if she understood them as set forth, and if the dealers in these corsets append answer to question 8 to their advertisement it would increase their sales.

C. Q. 25. I will ask you, sir, whether, in addition to your description of the merits of these corsets, the certificates of the physicians, in your opinion, had anything to do with increasing the sales.

A. I presume the certificates of well-known physicians,
82 such as Dr. Byford, for instance, known to all the ladies of the city, favorably endorsing the corset as healthful in its character, would help its sale.

DAVID J. POWERS.

Subscribed and sworn to before me this 31st day of July, A. D. 1882.

[SEAL.] JNO. C. MACGREGOR,
Notary Public.

STATE OF ILLINOIS, }
County of Cook, } ss:

I, Jno. C. MacGregor, a notary public in and for the county of Cook, in the State of Illinois, do hereby certify that the foregoing depositions of John Nuveen, Thomas H. Ball, and David J. Powers were taken by me and before me, pursuant to notice hereto attached, at the times and place therein specified; that the parties to the said cause were present at the taking of the same—complainants by their counsel, L. L. Coburn, Esq., and defendant by his counsel, Jno. C. Chumasero, Esq.—as therein appears; that said testimony is taken on behalf of the complainants, to be used upon the hearing of a certain cause now pending in the circuit court of the United
83 States for the northern district of Illinois, wherein Simon Florsheim and Thos. H. Ball are complainants and Gustav Schilling is defendant; that before deposing the said John Nuveen, Thomas H. Ball, and David J. Powers were by me respectively sworn to testify the truth, the whole truth, and nothing but the

truth in the cause aforesaid; that these depositions were reduced to writing by me from their statements and the same duly subscribed and sworn to by each, respectively, as therein appears.

And I do further certify that I am neither attorney nor of counsel for any of the parties in said deposition or caption named, and am in nowise interested in the result of said cause.

In testimony whereof I have hereunto set — hand and notarial seal this 31st day of July, A. D. 1882.

[SEAL.] JOHN C. MACGREGOR,
Notary Public

84 United States Circuit Court, Northern District of Illinois.

SIMON FLORSHEIM and THOMAS H. BALL
vs.
GUSTAV SCHILLING. } In Equity.

Notice.

To Flower, Remy & Gregory, defendant's solicitors:

Take notice that on Monday, the 6th day of August, 1883, at 10 o'clock a. m., and from day to day until completed, at our offices, in Ashland block, Chicago, and before Jno. C. MacGregor, a notary public, or some other competent officer, we shall proceed to take proofs in rebuttal on the part of the complainants in the above-named cause.

You are invited to be present and cross-examine.

COBURN & THACHER,
Complainants' Solicitors.

Chicago, Ill., August 4th, 1883.

Service of the above notice accepted by copy this 4th day of August, 1883.

FLOWER, REMY & GREGORY,
Defendant's Solicitors.

85 United States Circuit Court, Northern District of Illinois.

SIMON FLORSHEIM and THOMAS H. BALL
vs.
GUSTAV SCHILLING. } In Equity.

Met at the offices of Coburn and Thacher, Ashland block, Chicago, Illinois, pursuant to notice hereto attached, on this 6th day of August, A. D. 1883, to take proofs in rebuttal on the part of complainants in the above-entitled cause.

Present: L. L. Coburn, Esq., of Coburn and Thacher, on behalf of complainants, and Hon. Jno. C. Chumasero, of Flower, Remy & Gregory, and Wm. Zimmermann, Esq., on behalf of defendant. Whereupon the following proceedings were had before me:

R. D. O. SMITH, a witness produced on the part of complainants, being first duly sworn to testify the truth, the whole truth, and noth-

ing but the truth in the cause aforesaid, in reply to interrogatories propounded to him by counsel for complainants, testified as follows:

Q. 1. What is your name, age, residence, and occupation?

A. Robert D. O. Smith; age, 51; residence, Washington, D. C.; solicitor of patents.

Q. 2. What has been your experience with new inventions and patents therefor and the investigation of mechanical drawings and descriptions of the same that would tend to qualify you to testify as a mechanical expert in patent litigated cases?

A. I have been for the last 20 years continuously engaged as a solicitor of patents. In connection with that business I have had
86 constant intercourse with new inventions, investigating them and comparing them with other inventions, describing them in applications for patents, and prosecuting said applications. I have also made numerous searches as to the state of the art with reference to litigation of patents and have frequently testified as an expert in patent causes.

Q. 3. What have you done, if anything, preparatory to testifying in this cause as an expert?

A. I have read the patents to which my attention has been called as being the basis of this litigation. I have also examined the models in the Patent Office and made a deposition heretofore with reference to the condition of those models. I have also examined certain English patents to which my attention has been called, and have read several of the papers and depositions made in the case.

Counsel for defendant objects to the above testimony and all other affirmative testimony on the ground that it should have been introduced before the complainants rested their case.

Q. 4. Upon comparing complainants' patents, marked "Complainants' Patent, Exhibit No. 1" and "Complainants' Patent, Exhibit No. 2," with the English patents of prior date, to which your attention has been called, how do you find them to correspond therewith or differ from said patents, so far as the invention claimed by Florsheim in complainants' patents are concerned?

Defendant's counsel objects to the question and the evidence sought to be introduced under it on the ground that the patents speak for themselves and do not exhibit any ambiguities requiring explanation from an expert.

87 A. On examining "Complainants' Patent, Exhibit No. 1," I find that it is set forth to be for an improvement in corsets; that the particular subject embraced in this patent is an "improvement upon the corset shown in the patent granted Nov. 25th, 1879. * * * That while the same will possess all of the advantages obtained by the use of the covered and grouped metal spiral springs, it will allow a more equal expansion of the entire corset; will adapt itself more perfectly to the form of the wearer, and will better supply the popular want, in that it will have means for lacing the corset at the back. The improved corset also includes a better and cheaper method of securing the springs and forming the groups whereby the

elastic sections can be stitched in place on a machine without interfering with the springs, and the elasticity of the sections cannot be injured by the stitching." I find, therefore, that this patent covers an improvement upon the prior patent named, and it therefore necessarily covers something different from the invention described in said prior patent. Looking at said prior patent, if my recollection serves me correctly, there is described and shown a corset having in the back and extending the whole length thereof, in the part usually occupied by the lacing, an elastic section deriving its elasticity from transverse rows of metallic springs arranged in groups, each spring passing across the said section and secured at its ends by the stitching which unites the edges of the section to the side pieces of the corset. That is the structure as it is shown and described in the patent granted Nov. 25th, 1879, and the patent "Complainants' Exhibit No. 1" differs from that in these particulars. The elastic section is placed in the side instead of at the back, so that the
88 corset may be laced in the usual way; and the springs are shown as continuous, running back and forth across said sections, so that the springs of each group are joined together and the several groups are also joined together, and there are but two terminals to be secured—one at the top and the other at the bottom of the section. The springs also do not extend to the edges of the side pieces of the corset. The covering material of the springs being wide enough to leave a margin beyond the springs, through which the stitches pass to unite elastic section with the side pieces of the corset, said stitches therefore do not cross the springs, the seam is made smoother, and the springs themselves are not endangered by the needle which makes the stitches. I therefore conclude, in my own mind, that the continuous spring, the margin of the covering material whereby the elastic section may be stitched to the side pieces without the connecting stitches crossing the springs, the location of the section and the material, possibly, of the springs form the characteristic features of the corset described in this patent.

I am aware that when I examined the model pertaining to the patent of the 25th of November, 1879, I found some of the springs were arranged in a manner somewhat different from that which I have described above, and my reason for expressing the opinion which I have is based upon the fact that the law requires the Commissioner of Patents to issue patents only for things which are new and original with the applicant, and that I presume in every case that the Commissioner has done his duty until some evidence appears to the contrary. From my long personal intercourse with the officers of the Patent Office I know they are generally expert (this part of the testimony is objected to by defendant's counsel),
89 and I believe careful in the exercise of their duty; therefore, when I find an apparent discrepancy between the model and the drawing and the description of a patent, and that discrepancy subsequently made the subject of another patent, as in this case, I presume that the office acted intelligently and with good reason, and that the patents are properly issued. I make this statement in explanation of the reasons which have influenced me in concluding

that the patent "Complainants' Exhibit No. 1," properly covers the structure as I have described it. My opinion, therefore, in reference to this patent "Complainants' Exhibit No. 1" — that nowhere at an earlier date is shown a corset having an elastic section with a continuous spring arranged in groups and with a margin of the covering material whereby the section may be attached to the side pieces without the stitches crossing the springs.

Adjourned until 2 o'lock p. m., same day and place.

TWO O'CLOCK P. M.

Met pursuant to adjournment.

Present: As before.

Referring now to the claims of the patent "Complainants' Exhibit No. 1," I find the first claim to refer to and cover a corset with an elastic section, the spring whereof is continuous and arranged to form groups transverse to the section. The second claim refers to a section made as above and provided with margins for attachment to the side pieces of the corset. The third claim refers to the location in the corset of the elastic sections.

Referring now to the patent "Complainants' Exhibit No. 2" and basing my opinion of it upon the same reasons as those here-
90 tofore given, I find tha tthe invention is set forth as follows:

"The substitution of spiral metal springs for India rubber as an element in elastic gore, gussets, and sections for wearing apparel has not heretofore proved successful for the reason that in all instances the springs have been stayed at their ends by the same stitching that secures the gore to the material of the article of wearing apparel to which it is applied. This stitching cannot be done by machine, since the wire of the springs would be cut by the needle when struck squarely or the needle itself be broken; and when the elastic gore or section is sewed in position by hand and the springs are secured by the same stitching the seams are thick and uneven and present a bungling appearance, which destroys the salableness of the article, in addition to the fact that the hand sewing has heretofore made the use of metal springs impracticable on account of the increased cost. It is the object, therefore, of my invention to overcome the objections to the employment of spiral metal springs as a substitute for India rubber in elastic gores, gussets, and sections for wearing apparel, and this I accomplish by extending the springs only part way across the covering material and staying them at their ends by securing them to such covering material itself, while the covering material is extended beyond the ends of the springs to form inelastic margins by which the gore can be secured in position by stitching these margins on a sewing machine to the material of the article of wearing apparel to which the gore is applied." This is a statement as to the state of the art made by the applicant and endorsed by the Patent Office, as required by the statute; and from it, together with the description following in the specification, it appears that the characteristic

of the invention is in the single or discontinuous springs
91 which do not extend to the edges of the covering material, and therefore leave an inelastic margin, the ends of the springs being secured to the covering material independent of the fastenings which connect said material to the other part of the article of apparel, so far as I have become acquainted with the state of the art, either from reading this patent or other sources. I conclude that in this patent is the first exhibition of an elastic gore or gusset for wearing apparel wherein are single or discontinuous springs which do not extend to the end of the covering material and are independently fastened at their ends to the covering material, and I find in reference to the claims of this patent that the first claim refers to an elastic gore provided with spiral metal springs which do not extend to the edges of the covering material and are stayed at their ends by such covering material. The second claim embraces the structure above, with the limitation that the covering material is puckered over the springs, and that the margins are plain and unpuckered. The third claim prescribes that this covering material shall be woven with tubes and in a particular pattern. The fourth claim describes that the covering material shall be made of double thickness, having tubes which do not extend to the edges, and I am at present inclined to think that claims 3 and 4, in different words, cover substantially the same thing.

Referring now to the English patents, to which my attention has been called, to wit, Mr. Mills' specification No. 3894, 14th of March, 1815, there is shown and described in said patent a corset having elastic sections up and down the front, said elastic section being composed of metallic springs arranged between two thicknesses of covering material transversely to the section. Said springs
92 are single and discontinuous, and are secured at their ends by the same stitches which unite the section to the side pieces of the corset. They are not arranged in groups, they are not continuous, and the section is not provided with a plain, inelastic margin whereby the section may be united with the side pieces by stitches which do not cross the springs.

I therefore do not find in this patent any of the features which are characteristic of the inventions described in the complainants' patent, Exhibits 1 and 2.

2nd. English patent granted to James Miller and James Miller, Jr., No. 3451, for 1866. I find described as an article of manufacture an elastic gusset wherein the covering material is provided with tubes which do not extend to the edges, an India-rubber cord which passes back and forth through said tubes consecutively, so as to form a continuous spring, the two terminal ends of which are, respectively, at the opposite ends of the gusset. This gusset apparently is provided with a continuous spring and inelastic margins. It does not exhibit the features of complainants' patent No. 2, and therefore has no bearing upon that patent.

This last testimony objected to as incompetent, and the defendants' counsel asks that the same be stricken out.

With reference to its bearing upon the patent, Complainants' Exhibit No. 1, I am of the opinion that it does not have any material bearing upon said patent, for the reason that it is a patent for a gusset only, where complainants' patent is for a corset of which the elastic section or gusset is only one element or portion, and for the further reason that the springs are not arranged in groups
93 and the material described is well known to be unsuitable for use in corsets; that the mode of manufacture described is evidently costly and impracticable, and that the whole character of the invention described in said English patent is uniikely to be suggestive of the invention described in "Complainants' Patent, Exhibit No. 1."

This last objected to by defendant's counsel as incompetent.

Q. 5. It has been held by two or three of the circuit judges, as well as by the supreme court, that what was known as the dental vulcanite patent is valid because the vulcanite fused at a lower temperature than metal; does not shrink in cooling as much as metal, consequently when poured into the moulds around the prongs of the teeth did not expand, the pins passing through the prongs of the teeth as much as fused metal would, making less liabiiity to break the prongs and on account of less shrinkage in cooling would make a closer fit about teeth than metal. On these accounts it was found that different results were obtained by using vulcanite instead of metal, and certain objections to the use of metal were overcome. Please institute a similar comparison between the use of a rubber elastic gore or section in a corset and a coiled-wire spring elastic section in a corset, and state whether any different results would be obtained by the use of the coiled-wire spring elastic section from those obtained by the use of rubber, or any objectionable results would be overcome or prevented by the use of the coiled-wire spring elastic section; if so, state what.

Defendant's counsel objects to the question as being in-
94 competent and immaterial, as assuming facts not proven in the case, and as being without the proper purview of expert testimony.

A. I am well aware that very slight differences in the dimensions of closely fitting garments are very sensible to the wearer. This I have myself tested by relieving the pressure of a tight shoe by the change of stockings, putting on a thinner pair, the difference in the thickness being almost, if not entirely, inappreciable in any other way. In regard to the use of India rubber in articles of apparel which fit closely, I believe from my own experience and think it is commonly understood that such articles become tighter after being upon the person a short time, owing to the effect of heat in causing India rubber to contract. Therefore I can understand and I believe that the use of India rubber in a corset would be objectionable for that reason; because, so far as my observation goes and in accordance with general report, corsets are fitted pretty tight and any increase of tension would be objectionable. I know also from

observation that India rubber is softened and partly dissolved by contact with perspiration of the body, and therefore loses its elasticity; and also that it becomes hardened and brittle from age in a short time, so that I should judge from these general facts that rubber would be an unsuitable material for the springs of an elastic section or gore in a corset. So far as my information goes there is no corset in the market using rubber for springs. My information, however, in that regard is confined to what I have seen and the information derived through the prosecution of a number of applications for letters patent for corsets, which I have had in charge. With reference to the use of coiled-wire springs in articles of wearing apparel, it seems plain to me that they would not be
95 liable to the objections which I have mentioned as attending the use of rubber, because the tension of a wire spring would not be sensibly changed by variations of temperature between that of the atmosphere and that of the body, nor would it be softened by perspiration and rendered brittle by age. Besides that, India rubber when it is subjected to the warmth and perspiration of the body is unpleasant in its odor. I therefore am of the opinion that the substitution of metal springs for India rubber springs in a corset is of material and substantial benefit.

The further taking of testimony here adjourned until 10 o'clock a. m., August 7, 1883, at same place.

TUESDAY, *August 7th*, 1883.

Met pursuant to adjournment.

Present: As before.

Cross-examination by WM. ZIMMERMANN:

C. Q. 6. Mr. Smith, have you thoroughly examined all of the exhibits of the American and British patents on file in this case?

A. I have read them all, I believe.

C. Q. 7. In your opinion as an expert is it any invention to reproduce or multiply any article or thing once invented?

A. No, sir; duplication would not be invention.

C. Q. 8. Is it any invention, for instance, to put a barb on a fence wire, or another like barb on a fence wire for fencing purposes, after it has once been shown how to put on one barb?

A. If the barbs are alike it would not be invention.

C. Q. 9. Well, would it require any inventive ability to
96 put them at proper distance apart for the best effect for the end to be attained?

A. If the proper distance was known before it would not require invention; if it was not known it might.

C. Q. 10. Would you say, then, that if one man put barb on fence wire a yard apart and another one concluded that six inches apart was better, would you call that invention?

A. Perhaps that might more properly be called discovery, which is equally patentable as invention.

C. Q. 11. Have you ever known any such thing as a discovery being patentable?

A. Yes, sir; ever since the patent law was made discovery has been patentable. It is named in the statute.

C. Q. 12. Then, the discovery of the law of gravitation could have been patented, could it, in your opinion and from your statement made?

A. If it had been discovered in the United States since 1793 and had been applied to a useful purpose there is no doubt in my mind as to its patentability. It is still frequently patented in connection with mechanisms.

C. Q. 13. If discovery is abstractly patentable, as you stated, then the discovery of America would have also been patentable, according to your statement?

A. If I had made any such statement perhaps it would be, because I always try to tell the truth. I did not state that discovery abstractly is patentable. The statute does not so state.

C. Q. 14. Then, repeating the question, would you state that in my illustration given it would be a patentable discovery to place barbs on a fence wire from a yard apart to six inches apart?

97 A. I do not know; it would depend entirely upon the object and results produced by making the change, and I have no information at present which enables me to form any opinion upon a question of that kind. The statute provides that any discovery or invention which is new and useful may be patented. Hence, if a particular spacing of fence barbs is both new and useful it is patentable under the law; if it is not new or is not useful it is not patentable. It is a question of fact, and in the absence of facts a man cannot make a judgment.

C. Q. 15. You know the nature, functions, and object of a barb fence wire perfectly as it is made and used, do you not?

A. I have a general knowledge. I never built one or tried to climb over one.

C. Q. 16. That does not answer my question. Question repeated.

A. I have a general knowledge of the nature, functions, and object of a barb fence wire as they are made and used, but my experience with them has not been intimate. Therefore, perhaps I do not know them perfectly.

C. Q. 17. Then, since you know the nature and object of a barb fence wire, please state, upon your opinion as an expert, whether it would be patentable invention or discovery to reduce the distance of the barbs from a yard to six inches apart. Please answer directly, yes or no.

A. The witness desires to know before answering whether this question is a hypothetical question or not.

C. Q. 18. The question is given for the purpose of learning your opinion in such matters generally by this one illustration.

98 A. I assume, then, that the question is hypothetical, and I can only reiterate my former answers. If the subject of the question is new and useful it is patentable under the statute. It is a question of fact whether it is new and useful, and I do not

know of any way of applying the principle to the spacing of fence barbs different from its application to any other subject of discovery or invention.

C. Q. 19. Well, then, please answer the question as put to you before in regard to fence wire alone. Would it be patentable had the barbs first been spaced a yard apart and were then reduced to six inches?

A. So far as I am at present advised, I do not think there would be any invention in barbed-wire fences in changing the distance between the barbs, but from my experience as a solicitor of patents I do not feel at all confident that I may not be mistaken as to that.

C. Q. 20. Then you admit that simply spacing the barbs on a fence wire would not in itself be a patentable feature, although it did require some intelligence to make the beneficial change, do you not?

A. No; I do not. I have not made any such admission, and I don't propose to. I have frequently found plenty of inventions and patentability in things which were apparently as trivial as that. I said that at present, so far as I am advised, I do not think it would involve invention, but I did not say there would be no invention if the change was beneficial. As I previously did say, if the change was beneficial and also new it would undoubtedly be patentable.

C. Q. 21. But, assuming that the change was beneficial by putting on barbs only six inches apart instead of a yard upon a fence wire, do you mean to tell us that the simple fact of multiplying those barbs to that extent would be patentable?

99 A. Well, I don't know how I can answer the question any differently from what I have. I have already said that, as far as I am advised, I do not think it would be patentable.

C. Q. 22. You recognize the feature involved in this illustration as one of a general and well-known application in patent law, do you not?

A. Yes, and for that reason I desire to have my answer stand upon the statute.

C. Q. 23. Now, in regard to springs, does the substitution of a steel spring for a wooden one, where the latter answered the purpose, no new function being involved or any better result attained in the end through the mechanical device in which it is used, make patentable invention?

A. I suppose the question is intended to refer to patentability in the matter of substitution of materials. The general rule is that the mere substitution of materials does not confer patentability, but, so far as my recollection goes in all the decisions touching upon this question, the courts have laid stress upon the word "mere." There are plenty of patents resting upon the substitution of materials for their novelty, and such patents have repeatedly been sustained by the courts, so that I cannot give any different answer from my previous ones. If benefits come out of the substitution it may be patentable; it is not then a mere substitution.

C. Q. 24. I did not ask you what the law is nor for your conclusions of law in this matter, but simply your opinion as an expert

upon the state of the facts presented by my question. Question 23 is therefore repeated.

A. If the question is not a hypothetical one, then I desire
100 to see the springs and understand their purposes and relations before answering. If it is a hypothetical one, as I supposed, I do not know of any way of answering it except with reference to my conclusions as to the law. In the case suggested by the question, if it is a mere substitution, it would not be patentable.

C. Q. 25. But wood rots, and is otherwise not as durable as steel, and yet, based on the same state of facts as stated in question 23, you still think that the mere substitution of a steel for a wooden spring would not, under the circumstances, be patentable?

A. I am aware that wood will rot and that steel will rust. I am not aware, however, that wood would not be less durable, under similar conditions and under all circumstances, than steel. In fact, I know that it is used in preference to metal for springs in many structures.

C. Q. 26. Is it your opinion as an expert that wood used as a spring is as durable as one made of steel or brass?

A. It is well known that the durability of steel or brass as a spring is limited, but no one knows how long a wooden spring will last. Under favorable conditions wood is practically indestructable; consequently, the answer to such a specific question, which does not involve the surrounding conditions, cannot be made with certainty.

C. Q. 27. But my question did not involve the idea that the surrounding circumstances under which one spring operated were different from those of the other, but, on the contrary, were exactly alike. Then, under those circumstances, did you mean to say that a wooden spring would outlast one made of steel or brass? Please answer this question directly, yes or no.

101 A. My answer did not contemplate difference of circumstances. A wooden spring would probably outlast a steel spring if both were subjected to variations as to moisture in the atmosphere—changes from wet to dry. A wooden spring would probably outlast a brass spring if both were subjected to the weak acids derived from grease or oils. In both cases the metal would probably yield to corrosion sooner than the wood; and it is for these reasons, I presume, and possibly others, that causes wood to be preferred to metal for springs in many structures.

C. Q. 28. Then it is your opinion as an expert, from all your knowledge and past experience, that wood for springs is preferable to steel or brass and is so used and preferred in the arts wherever applicable?

A. There is no doubt whatever in my mind that wherever wood is used for springs in the arts it is so used because it is found to be preferable to metal.

C. Q. 29. On account of its durability over metals as a spring?

A. Its durability would undoubtedly be an element for consideration in determining the selection of wood as the material for springs.

C. Q. 30. Now, with all these desirable features possessed by wood, according to your statements as an expert, would, for instance, the substitution of a wooden for a former steel spring in a jig-saw, each performing precisely the same function, only the wood being better as a spring, according to your statements just made, be a patentable feature of invention? Please answer directly, yes or no.

A. If it were a new invention or discovery I do not know of any reason why it should not be patentable.

C. Q. 31. I did not ask you for your supposition, but
102 simply and plainly stated that the wooden spring was substituted for the former steel spring and performed precisely the same functions, and yet, according to your statement of the superiority of wooden over steel springs, asked you whether, under such circumstances, the substitution of the wooden for steel springs was patentable invention.

A. I tried heretofore to make myself clearly understood upon the question involved in the interrogatory. If it is not a hypothetical question I desire to see the device referred to before answering. If it is a hypothetical question I am not willing to give it a specific answer unless it includes all possible conditions necessary to avoid uncertainty.

Adjourned until 2 o'clock p. m., same place and day.

TWO O'CLOCK P. M.

Met pursuant to adjournment.

Present: As before.

C. Q. 32. Mr. Smith, suppose that you asked an architect what pressure a cubic block of Quincy granite one foot in dimension each way would bear, and he told you in reply that he could not answer without first seeing the block of granite, and further said that he wanted to know whether the question was hypothetical or not, would that be a proper answer to the question?

A. It strikes me that it would be an exceedingly proper and sensible one, because he couldn't ascertain what the resistance would be unless he could see the block referred to and test it.

C. Q. 33. Do you mean to say that that would be the only answer that could be given to such a question?

103 A. No; he might already be in possession of the information, or he might guess at it. I think no careful man, being asked as to a physical fact of that sort, would be willing to answer in the absence of definite information.

C. Q. 34. But, according to the answers made to my previous questions, no architect could be able to inform you what the resistance of such a cube of granite would be until he had crushed it, and then it would no longer be a cube of granite; so, answering in that way or taking your answers to be true, we would gain no knowledge from the experience of others; and, having crushed any number of cubes of granite of such dimensions and ascertained such facts by experiment, you would still reply as before and would give no definite answer. You think that would be the true course to follow for an

architect? In other words, there would be no facts known to the architect upon which to base his opinion?

A. In answer to that I will say that an architect who would go before a court and swear that a block of granite, one foot cube, would bear a certain resistance, to his own certain knowledge, without having tested it or seen it tested, would be a very foolish man. It is one thing to answer a question from information derived from ordinary sources and another thing to swear to the absolute truth of the answer. In the course of this cross-examination you have asked me a series of hypothetical questions, more or less vague and indefinite, in my estimation, and have asked me to give specific and categorical answers, which, under possible circumstances, I believe would be untrue. I do not wish to answer such questions except in the hypothetical way in which they are given. I disclaim any interest in this case or any desire or intention to strain or color the facts, as I shall testify to them according to my best belief.

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Defendant's counsel objects to the latter part of the answer, as it is irresponsive to the question, and asks to have it stricken out, especially as thus far no one has attempted to impugn the witness' motives, but we are simply endeavoring by our examination to ascertain and develop such facts as we deem pertinent to the case, disclaiming any attempt to annoy the witness or make use of any undignified or improper meanings.

C. Q. 35. The questions asked you, Mr. Smith, are simply questions of fact, with which, as an expert, as you claim to be, I supposed you to be familiar and could answer them by a simple yes or no, and if you will so answer my questions in the future, without qualifications, unless such are included in the answer, the end desired by us will be attained with very little trouble. You are aware, I suppose, that in the illustration I have given that there are published tables giving the facts derived by experiment; and, relying upon such facts to be true, the architect would tell you what pressure the cube of granite would bear. Would you think that, answering from such data, an architect would be liable to mislead his customer, or would such evidence be refused as testimony in court?

A. I further appreciate the difficulties which you are encountering, because I have encountered them myself more than once. If your question had been as to what Haswell or some other engineer may have stated in his tables it would have been easy to answer, but your question called for original information.

104½

C. Q. 36. Then, in regard to the question of substituting a wooden for a steel or brass spring, the point was, Would it be any invention to substitute one for the other in the same place in some mechanical device, as in a jig-saw, for instance, where, under the same circumstances, it performs the same functions about as well?

A. Well, I think I have answered that three times already. If it would be a mere substitution, as indicated by the question, then it would not be patentable.

C. Q. 37. Mr. Smith, are you a practical draftsman? Have you ever done that kind of work? I mean executed mechanical drawings either for the Patent Office or for the purpose of the machinist or other artisans to build or work from.

A. Yes, sir; I have; both for the Patent Office and the machinist.

C. Q. 38. Then you thoroughly understand a drawing and can interpret it correctly, can you?

A. Sometimes. I have seen many drawings which I could not understand.

C. Q. 39. Please look at the copy of British patent No. 3894, of 1815, and tell us, first in a general way, what the drawings are intended to show.

A. They are intended to show a corset or corsets.

C. Q. 40. Is there an elastic section shown in that corset?

A. There is.

C. Q. 41. From the description and drawing, both considered together, do you find coiled-wire springs in the elastic section shown?

A. Yes.

104¾ C. Q. 42. Are the springs shown each by itself across the elastic section?

A. They are.

C. Q. 43. How are they distinguised one from another?

A. They are distinguished by rows of marks giving a shaded appearance across the drawing, and I know that such rows of marks indicate the place of springs, because that fact is indicated in the specification.

C. Q. 44. Is anything else shown by those shaded marks across the elastic section?

A. Yes; the puckered condition of the covering material over the springs.

C. Q. 45. How far does that shirred or puckered condition of the covering material extend?

A. I think it extends to the edge of the elastic section.

C. Q. 46. How far do the springs of said elastic section extend?

A. I think they also extend to the edge of the elastic section.

C. Q. 47. Then how is the elastic section fastened to the body of the corset—how is that shown?

A. The edge of the elastic section is lapped past the edge of the side pieces of the corset; probably inserted between the two thicknesses of said side pieces and the section, and the side pieces are then united by rows of stitches. The stitching is indicated in the drawing and the specification states that they are so united.

C. Q. 48. Then, judging from your statement and the drawing, there is a margin beyond the coiled-wire springs and shirred

105 or puckered covering over the springs into which the springs do not extend, and which part is also left plain or unpuckered?

A. You strangely misjudge my statement, which is exactly to the contrary effect.

C. Q. 49. If that is your answer, then the line indicating the outer

margin of the shirred or puckered covering also indicates the outer edge of the elastic section and the ends of the springs. Is that true?

A. I have not stated that there was any such line.

C. Q. 50. Then what does this line showing the outer margin of the shirred or puckered covering, indicated by the shading inside, indicate?

A. The line to which you have called my attention, pointing it out with your pencil, indicates the edge of the side piece of the corset. The puckered covering material and the springs disappear behind the material of the side piece, and the location of the edge of the elastic section is not indicated by any lines of the drawing which I can identify.

C. Q. 51. Mr. Smith, in your opinion, what does the broken line immediately outside of the shaded part of the elastic section in figure 1 show?

A. In figure 1, as in the other figures, there are numerous rows of dotted lines, which I suppose indicate lines of stitches, and I do not see any reason for thinking the lines indicated by your question refer to anything else than stitches.

C. Q. 52. I did not ask you about the other lines of the figure; only those pointed out. What do they indicate?

A. I have already said that I think they indicate rows of stitches, and have given my reason for thinking so.

106 C. Q. 53. For what purposes would those rows of stitches, if they are such, be shown in that place?

A. Probably for the purpose of showing the stitches which unite the elastic section to the side piece.

C. Q. 54. Then, if that is the case, do you think that the drawing here shown would correctly represent that part of the invention or device?

A. I think so; I see no reason to question it.

C. Q. 55. If those two rows of broken lines represent the stitching, as you suppose they do, ought not the shading lines across the section and showing the springs extend to those rows of stitching?

A. The rows of stitching to which I have referred and to which you called my attention first are the two rows, one on each side, nearest the margin or edge of the side pieces. I know of no reason for continuing the shading marks of the elastic section past the line which indicates the margin or edge of the side piece, and do not think any draftsman, in absence of instructions, would be likely to extend the shading of the puckered surface further than it has been by the draftsman who made figure one. If those shading marks ought to extend to the dotted line, as indicated by your question, they ought also to extend beyond that line, because the edge of the elastic section and the ends of the spring are beyond the line of stitches which unite the elastic section to the side pieces.

C. Q. 56. Would not the stitches uniting the elastic section to the side pieces unavoidably draw down the material laying over the springs, if the springs so extended underneath the overlapping side pieces, and thereby, if a draftsman correctly represented the con-

struction; would he not have to show a shading representing
107 the springs to and beyond said rows of stitching? Could the device otherwise be truthfully represented?

A. I knew a draftsman once undertake to depict upon his drawing the natural shadows of the machine, and I never knew him to try it the second time. I think it would be wholly unnecessary and very generally troublesome if a draftsman should put upon the drawing marks to indicate all the delicate shadows which a photograph would show, and in the presence of written description connected with the drawing there is seldom any necessity for any shade lines at all, and they are very seldom employed upon mechanical drawings except in a very sparing way.

C. Q. 57. I did not ask you what some foolish draftsman may have done that you knew of or how unnecessary it was for him to draw certain shade lines. I asked you if in your opinion as a draftsman that part of the drawing now under consideration would be correctly represented. The former question is repeated.

A. I think it probable the stitches would draw the material down between the springs, but to what extent I do not know; and, answering your question as a draftsman and according to the customs of a draftsman, and in view of the fact that this is a drawing attached to a patent, I say it is truthfully represented as it is.

C. Q. 58. Mr. Smith, looking at this figure 2, these dark transverse lines across the elastic section show the location of the springs, do they not, the covering material hiding them underneath, but still the draftsman showed by heavy shading lines on this covering material where they are. Now, tell me, please, if the springs extend under the overlapping edges of the corset why the shading lines should stop entirely at the very edge of the overlapping
108 material when the springs extended beyond it and, as you have stated, the stitching would draw such covering material down between the springs just the same as over the shirred or puckered part.

A. Well, I think the draftsman represented it in the way he did because he was a man of very good sense and did not undertake to indicate unnecessary things by lines which could not fail to be misleading or make the structure obscure. I have not said and do not believe that the material of the side piece would be drawn down between the springs like the puckered surface of the elastic section between the edges of the side pieces.

The further taking of testimony here adjourned until Wednesday, August 8th, 1883, at 10 a. m., at same place.

WEDNESDAY, *August 8th*, 1883.

Met pursuant to adjournment.
Present: As before.

C. Q. 59. You say you do not believe that the material of the side piece would be drawn down between the springs like the puckered surface of the elastic section. Please give us your reasons for this opinion.

A. I have previously said that I presumed it would be drawn down; but as the side pieces of the material of a corset is usually a very strong fabric and presents two additional thicknesses over the springs, and as it appears entirely probable to me the pressure of the stitches will draw the coils of wire under them out of shape, I think it entirely unlikely the surface of the side piece would be drawn down between the springs to any such extent as appears on the surface of the elastic section.

109 C. Q. 60. First you say there are two additional thicknesses over the wire springs. Do you mean to say there are two additional thicknesses on each side of the springs?

A. There is certainly one additional thickness on each side, and probably two on each side, because the edge of the side piece would be turned under so as not to present a raw edge. I therefore took the safe side by saying two additional thicknesses.

C. Q. 61. Would not the stitching which unites the elastic section to the corset have to be strong and draw the parts closely and firmly together in order to keep them in place when in use?

A. Yes.

C. Q. 62. Then the drawing down of the overlapping parts between the coiled-wire springs is only a matter of degree; the overlapping sections do lay down between the springs just like the shirred covering material, only not quite so much; that is all, is it not?

A. That isn't in accordance with my first statement.

C. Q. 63. Then if that is the case what possible reason could there have been for omitting the shading lines through the overlapping parts, so far as the springs extend between them?

A. They were omitted because, under the circumstances of this case and the purpose for which this drawing was made, there was no possible necessity for them; they would do no good but would do harm; and for the further efficient reason, probably, that the draftsman did not consider himself paid for unnecessary work on the drawing.

C. Q. 64. If shading lines were unnecessary for the overlapping sections, then why should they not have been unnecessary between the overlapping sections on the shirred covering cloth of the springs?

110 A. They were put upon that part of the drawing for the purpose of indicating an elastic condition which does not exist under the overlapping edges of the side piece. Those marks were not absolutely necessary on that surface because the description would have conveyed every idea which the marks convey. They are, however, useful there because they obviate the necessity in some degree of referring to the description to ascertain that the section is elastic.

C. Q. 65. On referring to the drawings I find there are two kinds of shading lines. Which kind has your answer reference to?

A. Both, if there are two.

C. Q. 66. Do you not observe two kinds of shading lines—the one

light, vertical to the direction of the springs, and the other heavy and at an angle to the direction of the springs?

A. I observe that in each of the three figures the draftsman has pursued a different method to indicate the shirred or puckered surface of the elastic section. These shade lines, like all other shade lines used by mechanical draftsmen, are entirely conventional.

C. Q. 67. Do you not observe the fine or finer vertical lines before spoken of in each of the three drawings?

A. Well; in figure 1 there are none but vertical lines; in figure 3 there are vertical and oblique lines; in figure 2 there are vertical, oblique, and horizontal lines. I do not know of any reason for attaching a different meaning to the lines in the three figures.

C. Q. 68. Then you do find the vertical lines in each of the three figures?

A. I have not denied it.

111 C. Q. 69. And you have just stated that those vertical lines were conventional. Now, what do those vertical shading lines mean?

A. In this case they simply mean that the draftsman wished to convey the idea that the surface was uneven or puckered. In another case they might be meant to convey an entirely different idea.

C. Q. 70. Then, in this case, those vertical shading lines are meant to represent the folds or puckers of the covering material; do they not?

A. That is precisely what I said some time ago.

C. Q. 71. Now, what do those heavy diagonal lines mean on figures 2 and 3?

A. I have already stated very explicitly, and I am perfectly willing to repeat it as often as is desired, that the whole mass of shading lines on these elastic sections in figures 1, 2, and 3, vertical, oblique, or horizontal, or mixed, mean nothing in themselves, but simply exhibit the conventional method which the draftsman adopted to convey the idea of a rough or puckered surface in this particular case.

C. Q. 72. That does not answer my question. The question is repeated.

A. My answer is perfectly full and explicit. They mean nothing unless taken in connection with other lines of the drawing, as I have stated.

C. Q. 73. Then conventional lines, according to your definition, mean nothing; do they?

A. In themselves they mean nothing. In some cases, by a common understanding among draftsmen, they have a meaning; in other cases, as in this case, they convey an idea when taken in connection with the rest of the drawing.

112 C. Q. 74. You answered, before substantially that the light vertical lines represented the shirs or puckers taken in connection with this drawing. Now, what do the heavy diagonal lines represent, taken in connection with this drawing—they also, like the vertical lines before spoken of, being conventional lines? Please answer this question direct.

A. They are simply part of the system which this draftsman adopted for the purpose which I indicated in my 71st answer, which covers the whole ground of these lines, whatever their character or direction.

C. Q. 75. What, Mr. Smith, do you understand by a conventional line in a drawing?

A. In a mechanical drawing any line put thereon, excepting possibly the pure outlines, is conventional, and the outlines themselves are, strictly speaking, conventional because they do not represent truthfully any line which the eye perceives in nature.

C. Q. 76. Then a conventional line, in other words, is a line which every one skilled in the profession would understand to mean a certain definite thing always when expressed in that manner, and nothing else, precisely like a written word. Is not that the true meaning of a conventional line?

A. It might be if all draftsmen were as skillful as you and I, and I do not think the art has been refined to that extent.

C. Q. 77. Then to those who fully understand the business, lines defined as in my previous question would then be conventional lines, would they not?

A. I never saw a draftsman who was so skillful as that.

113 C. Q. 78. Then, if I understand your answer, any one who undertakes to make a drawing may make any lines as fancy might direct and call them conventional; would that come within the meaning of your definition?

A. That expresses the practice quite accurately.

C. Q. 79. Then if I made a drawing to represent a book by a double cross, as the word number is sometimes represented, all who looked at that drawing would be expected to understand that that was a book, would they?

A. I really cannot say whether that expectation would exist in your mind or not. If it did, I do not think it would be realized. The question is not justified by any answer I have given.

C. Q. 80. Then you conclude that a conventional line to represent a certain thing or conditional thing must be such as the public at large, or at least those skilled in certain branches of their profession, would understand, do you not?

A. It would undoubtedly be better if such were the case, but it is not entirely so.

C. Q. 81. Then according to your definition of a conventional line the various and differently formed lines upon the drawing show different facts and conditions of things, do they not?

A. They may or may not. Lines may be used singly or in combination to convey the same idea, and have so been used by the draftsman in this case.

C. Q. 82. I have not asked you for instruction in drawing. Question 81 is repeated.

A. They may or may not. Lines may be used singly or in combination to convey the same idea, and have so been used by the draftsman in this case.

114 C. Q. 83. That does not answer my question. I ask you for facts, positive statements in plain, clear terms. Can you answer them?

A. If my answer is not a plain and positive statement of facts in answer to the question, then I don't understand your question.

C. Q. 84. Question 81 repeated.

A. Unless question 81 is explained, my answer would be the same, however often repeated.

C. Q. 85. Do the varions and different formed lines upon the drawing show different facts and conditions of things?

A. No.

C. Q. 86. Please explain your answer, Mr. Smith.

A. Lines may be used singly or in combination to convey the same idea, and have so been used by the draftsman in this case.

C. Q. 87. In question 85 I asked you, Do the various and different formed lines show different facts and conditions of things? To which you reply, No. According to that answer to this question, that drawing represents nothing. Is that your meaning by answering no?

A. No; that is not English.

C. Q. 88. Then please give us the English of that question, 85.

A. The English of it is that your question asked me if the various and different formed lines do not show several different things, and I said no.

The further taking of testimony is here adjourned until 2 p. m., same day and place.

TWO O'CLOCK P. M.

Met pursuant to adjournment.

Present: As before.

115 C. Q. 89. You already stated that the vertical lines on the elastic section represented in the drawing showed that the covering material was puckered. Now, what do the heavy horizontal lines of the elastic section of figure 2 represent?

A. As I have already stated, the vertical lines in figure 1 indicate that the surface of the elastic section is shirred or puckered. The vertical, oblique, and horizontal lines of figure 2, taken together, show that the surface of the elastic section is shirred or puckered. The vertical and oblique lines of figure 3 show the same thing; and, as I have before stated, these three figures simply indicate three ways—three modes adopted by the draftsman to convey the same idea. These lines have not, so far as I know or can ascertain, individually, any separate meanings.

C. Q. 90. You did not understand my question. I did not ask you anything in reference to the other two figures but simply as to figure 2.

A. The vertical, oblique, and horizontal lines of figure 2, taken together, show that the surface of the elastic section is shirred or puckered. These lines have not, so far as I know, any individual or separate meaning.

C. Q. 91. Do not the heavy lines referred to form the bottom of a crease in the covering material of the elastic section between two adjacent springs?

A. That line is probably at the place where such crease exists.

C. Q. 92. Then, such line indicates that fact, does it not?

A. It may have been so intended. I do not know anything to the contrary; but it is not a necessary inference, because in
116 the elastic section shown in figures 1 and 3 the same creases exist without any such line to indicate them.

C. Q. 93. Admitting the inference to be correct, and taking either figure, if you please, and representing the dividing lines in either of the two ways, and the overlapping parts of the corset upon the ends of the springs being depressed in the creases between any two adjacent springs by the switches which unite the two parts, why should those lines abruptly stop at the inner edges of the overlapping sections instead of being shown as continuing for some distance beyond the inner edges of the overlapping corset?

A. Well, I suppose it was because, as I stated before, they ought to stop there.

C. Q. 94. Why ought they stop there?

A. For the reason, as I have before stated, that the surface to which they appertain disappears at that point.

C. Q. 95. In such a case has the proper representing of such a line or crease of a drawing anything to do with the material over which it is supposed to be made?

A. I do not understand the question.

C. Q. 96. I will put it in another form. If the covering material over the springs, for example, is silk and the overlapping parts of the corset are linen, and the parts formed as you have stated they are, would that require a different representation of the line on the silk from that of the linen part of the structure?

A. I do not know of any reason why it should.

C. Q. 97. Nor do I. Then it ought to have been drawn over the linen as well as over the silk or other covering material to and beyond the stitching which unites the elastic section to the corset, undoubtedly, had it not?

A. I am willing you should think so, but I do not.

117 C. Q. 98. Do you mean to say, as an expert draftsman, that under the evidence, circumstances, and facts as you have stated to-day relating to that drawing that it would be possible to form another and equally rational conclusion?

A. I don't understand that question. Do you mean possible or impossible?

C. Q. 99. Possible or impossible. I do not see any choice of the words; you may take either.

A. I don't understand that, sir. I haven't stated anything bearing upon the possibility of another conclusion. I am glad to know from you that the facts and circumstances as I have stated them are evident.

C. Q. 100. You stated as a part of an answer to a previous question that the coiled-wire springs extended beyond the overlapping

edges of the corset, and that this fact was plainly stated in the specification. Will you please point out in the specification where such statement can be found?

A. I said beyond the overlapping edges of the side pieces of the corset. In the patent are these words: "That which I recommend is small brass wire—worm springs—which extend by a small degree of force. These I place close together, in runners or spaces stitched in between two pieces or laying of silk, satin, or other fit material, puckered or quilted loosely to give room for expansion. The ends of the springs and their covering of silk, satin, or other matter on them — sewed or otherwise fastened between the two half pieces of the stay previously made." These words do not admit of any understanding except that the ends of the springs, together with the covering material, are overlapped by the material of the side piece and are together sewed to the material of the side piece.

118 C. Q. 101. Then your conclusion is inferential. It is your opinion, formed from the imperfect specification relating to this part of the subject, that leads you to think so and not because it is plainly stated in the specification. Is not that the true state of the facts?

A. I don't think it is. I regard the statement of the specification as unmistakable instead of imperfect.

C. Q. 102. From the drawings and descriptions thereof made in this patent could you go to work with your own hands and make the article as specified?

A. The law does not require that much of me; but a corset-maker who could not do so I should regard as being very far from skilled.

C. Q. 103. I did not ask you what the law required of you, but whether you could, as before stated in question 102, make such a corset. Please answer yes or no.

A. Never having tried to make a corset, I do not know.

C. Q. 104. Then you are not absolutely sure that you understand the proper construction of that mechanism, are you?

A. Yes, sir; I think I am absolutely sure I understand the proper construction of it as shown and described.

C. Q. 105. You mean after it is finished, do you not?

A. I didn't say so; I said the construction of it.

C. Q. 106. There are two different meanings to that answer as I take it: One, that you would understand the construction of it in making one, and the other, that you would understand the finished structure. Which of these two constructions of your answer do you mean to be the right one?

A. You may consider that my answer includes either or both.

119 C. Q. 107. With the help of that specification please tell us how you would construct such elastic section as there shown, step by step, until it is finished and ready to be stitched to the body of the corset.

A. I would take two pieces or layings of silk, satin, or other fit material and would stitch in spaces or runners. In each of said

spaces or runners I would place a small brass worm spring, and I would pucker the covering material loosely to give room for expansion.

C. Q. 108. Would that complete that part of the structure?

A. It would then be ready to be sewed to the side pieces of the corset.

C. Q. 109. How would you do the puckering of the covering material?

A. In the usual way practiced since puckered garments were worn.

C. Q. 110. Please tell us how it is done when made in the usual way.

A. In such a case as this it would be done by simply puckering the cloth together over the spring so that, as the specification says, should be loose over the spring and allow room for expansion.

C. Q. 111. Would that be all that would be necessary to do to make such an elastic section?

A. That is all that the specification says that is necessary, and all that would be necessary to make the elastic section ready to be sewed fast to the side pieces.

C. Q. 112. Do you think that when the covering material is sewed in channels or tubes, as specified, it can easily be puckered or pushed together with the fingers, and that it will remain in such position without being confined there?

120 A. It would be simply a matter of relative size of springs and channels or tubes.

C. Q. 113. Please make your last answer clearer.

A. Add to my previous answer whether it could be easily puckered or whether it woul stay indefinitely without being confined.

C. Q. 114. Are not the facts well known from experience in the manufacture of such elastic sections that the covering material will not easily pucker, and that the covering material will smooth out the moment it is released?

A. I don't know what the experience of manufacturers is.

C. Q. 115. Then after all you do not really or fully understand the practical construction of this part, do you?

A. I told you before I never had tried to make a corset. I didn't give my method as the most skillful one according to the art of today, but as a possible one in accordance with the specification.

C. Q. 116. In answer to questian 104 you replied: "I am absolutely sure I understand the proper construction of it as shown and described." Is not puckering the covering material and keeping it in that condition a part of the construction of this part of the corset?

A. Well, if it is, I have not said I could make the corset with my own hands, nor that I know all the methods of the trade; but that I know how this corset is described and may be made.

C. Q. 117. My question did not at all relate to skill, but merely to practical facts. Do you believe, I repeat, that you could fold or pucker the covering material and make it stay in its place by simply pushing it together?

121 A. After the runners were filled it could be puckered and it would stay.

C. Q. 118. You are sure that you are correct in this answer, are you?

A. I have no doubt of it, as a practical fact. Whether it is in accordance with the practice of manufacturers to do it in that way I do not know.

C. Q. 119. Does the inventor say that the springs used in the structure should be of uniform size or strength?

A. Yes. It says that stronger springs may be placed at top and bottom than in the middle.

C. Q. 120. Now, taking the elastic section as a whole, with its springs in it as there shown, — it should be found to be too strong, and to remedy that defect an occasional spring should be taken out here and there, where most needed, would that be anything more than what an ordinary workman ought to or would do under the circumstances?

A. I don't find any provision in the patent for anything of that sort, and don't take much stock in the doctrine that inventions or improvements may be made by ordinary workmen without the exercise of contrivance. In my opinion, invention essentially consists in perceiving a defect and contriving a remedy for it.

C. Q. 121. I did not ask you about invention, but asked you a plain, straightforward question, to which I should like to have an answer—yes or no.

Question 120 repeated.

A. I beg the gentleman's pardon. He did ask me about invention, and I have answered it according to my best judgment.

122 C. Q. 122. I do not see the word "invention" in question 120. The language of that question is certainly not obscure nor the answer thereto impossible. It is practically the same question, and involves the same answer as the witness has already made when he answered to the questions relating to the barbs on a fence wire, where he stated that he thought it would not involve invention to increase or decrease the number of barbs on a fence wire, and I ask again whether he can answer question 120 directly—yes or no?

A. No; I cannot, and will not. My former answer is misstated. I said that, so far as at present advised, I was willing to say that in that particular case I saw no reason to think that invention would be involved, but I distinctly declined at that time to say that, in my judgment, it would be impossible to show invention in a case like that. It does not follow from that expression that I would make the same concession in this case, because the surrounding circumstances are entirely different. I understand question 120. If it means anything in English; if it means to ask me if the doing of a certain thing would involve invention, according to the terms of the question itself, it would involve investigation and discovery, and I know no reason for saying that such investigation and discovery could not involve invention.

The further taking of testimony here adjourned until Thursday, August 9th, 1883, at 10 a. m., same place.

THURSDAY, *August 9th*, 1883.

Met pursuant to adjournment.

Present: As before.

C. Q. 123. Mr. Smith, referring again to the drawing—figures 2 and 3—do you still think that the heavy diagonal lines represent nothing more than a part of the puckering of the elastic section?

123

A. I do.

C. Q. 124. Do you not think it possible that they represent the shading on the under and rounded side of the covering laying on that side of the spring?

A. Yes; I think that is included in my former answer.

C. Q. 125. Please look at the drawings of patents Nos. 222,082 and 224,559, forming a part of "Defendant's Exhibit," and examine particularly in reference to the elastic sections shown there, and state whether, in your opinion, they are correctly and truthfully represented.

A. I don't know what you mean by correctly and truthfully represented. The drawings are truthful to the description as far as I can see.

C. Q. 126. I mean that in both of these drawings the elastic section is clearly shown; the plain margin is distinct. The grouping of the wires and the puckering of the covering material are clearly shown, so that a practical draftsman could readily understand them, knowing from the specification what it is intended to show; that is my meaning of question 125. Please state what is your opinion.

A. My opinion is that there are no margins indicated in the drawing or alluded to in the specification. The springs and puckered surface run to and apparently disappear under the edges of the side pieces, precisely the same as in the drawing of the English corset, about which I have been asked a few questions, and the specification No. 222,082 says that each spring is of the required length and fastened at the ends to the cloth, or fastened both to the cloth and the edge of the sections A. A. In specification 224,559 it says the lengths of the springs (are) proportional to the varying widths of the gore. I do not find anything in either of these patents which would suggest to my mind the idea that the springs are not single and discontinuous and are not crossed by the stitches which secure the elastic section or gore to the side pieces. In fact, the words which I have quoted appear to me to be inconsistent with any other view.

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C. Q. 127. Please look at Complainants' Exhibit Patent No. 238,100 and state whether the drawings, figures 1 and 2, do not show precisely the same execution in the construction of the elastic section as you have just stated you find in patents Nos. 222,082 and 224,559.

A. The drawings in this patent, figures 1 and 2, do show, partly, a structure which would appear to be similar if there were no reasons to think otherwise; but figures 3 and 4 of this patent are details which show precisely the structure which forms the subject of the invention and patent.

C. Q. 128. Then, from your last answer, do you feel fully warranted in saying that there is no plain margin intended or possible in British patent No. 3894, of 1815, before spoken of?

A. I do.

C. Q. 129. In patent 238,100 the springs are shown to run up to the edge of the overlapping material, and the covering material is shown puckered up to said overlapping material, and beyond that the overlapping section is shown entirely smooth in both figures 1 and 2, a condition precisely similar to that shown in British patent No. 3894. Now, under this condition of things, is it not possible that the
125 British patent may have been and probably is intended to show a plain margin, assuming, as you believe, that the drawings are correct in both patents?

A. No; it is not possible. In patent 238,100 figures 1 and 2, to which you allude, are entirely subordinate and were not intended to show the details of structure of the elastic section. You might as well ask me to construe and define a whole patent from a consideration of any fragment of the drawing which you might chose to select.

C. Q. 130. Might not the draftsman have thought further details unnecessary in executing the drawings for the British patent, and that the intended margin to the elastic section was plainly enough indicated by the broken lines which show the stitching uniting the elastic section to the corset?

A. I don't know what the draftsman thought about it.

C. Q. 131. Referring now to patents 222,082 and 224,559 and 238,100, are not the drawings in these several patents executed in the same mechanical way, showing the springs and the puckered covering material?

A. Drawings 222,082 and 224,559 are drawn in the same mechanical way and apparently by the same draftsman; patent 238,100, the execution of the drawing is very different. It was drawn by a different draftsman.

C. Q. 132. In what respects is it very different?

A. In the style of execution.

C. Q. 133. Please state the particulars in which they are different.

A. Different in the method of making the lines; the difference in the appearance, in the character of execution, and artistic
126 excellence. The particular differences cannot well be described in words, but are perfectly apparent to the eye.

C. Q. 134. State some particular instance in which the difference appears.

A. Well, in the patent 238,100 there are two figures, 3 and 4, which are totally dissimilar from any figures to be found in the other two patents named. For a more specific reference, if it is desired, I would say that in neither patent, 222,082 or 224,559, is there anywhere shown a line in any degree resembling the line E of figure 4 of the patent 238,100.

C. Q. 135. I did not ask you what figures 3 and 4 did show. I only asked in reference to the mechanical execution of the drawings. Is

there in them any other difference than such as is always apparent on comparing the handwriting of different persons?

A. I have already told you that the difference in style and execution was perfectly apparent to the eye and cannot well be particularly described in words. If you will point out any particular line which you want me to compare I will do so.

C. Q. 136. Then, substantially, your answer to question 135 is that the difference you have spoken of before relative to those drawings is simply mechanical, or, in other words, that they differ from each other in that respect as one handwriting differs from another? Is that correct?

A. No, sir; I didn't say that was simply the difference. With reference to mechanical execution only; that is the difference.

The further taking of testimony here adjourned to 2 p. m., same day and place.

127 TWO P. M.

Met pursuant to adjournment.

Present: As before.

C. Q. 137. In mechanical execution of the drawings of these different patents there is yet one other feature I wish to ask you about. There are in figure 2 of patent 222,082, of both figures in 224,559, and figure 3 of 238,100 rows of stitching shown fastening the elastic sections to the body of the wearing apparel. Do they or do they not indicate a plain margin to said elastic sections? Please state if they do.

A. The rows of stitching do not indicate anything as to the margin.

C. Q. 138. If that is the case, then what are those rows of stitching there for?

A. They are there to indicate the location of the stitches which unite the side pieces and the section.

C. Q. 139. But if the springs extended to and beyond the said stitching the drawing ought to show a continuation of the shading of the springs as shown in all these said drawings, ought they not?

A. No.

C. Q. 140. Why not?

A. I have already been examined upon that pretty extensively. The drawings ought not to show a continuation of the shading over the surface of the side piece, because such shading would be unnecessary and obscure the drawing.

C. Q. 141. Is it not a fact that in all these drawings referred to, namely, patents 224,559 and 222,082 and 238,100, there are plain margins?

A. No.

128 C. Q. 142. Do you mean to say there are no plain margins indicated in patents Nos. 222,082 and 224,559?

A. I do.

C. Q. 143. Then how do you account for the mechanical execution of the drawing in those two patents, namely, 222,082 and

224,559, and that of figure 3 of patent 238,100 being executed exactly alike?

A. I don't know what the question means. They don't look to me as though they were executed exactly alike.

C. Q. 144. In patent 238,100 figure 3 shows the elastic section stitched to the body of the corset, with two rows of stitching on each margin, and the elastic part of the section as lying between the overlapping edges of the corset, do they not?

A. Yes.

C. Q. 145. And in figures 1 and 2 of patent 224,559 is not the elastic section united to the bottom of the garment in precisely the same way and shown in exactly the same way in the drawing?

A. Yes.

C. Q. 146. And in patent 222,082 are not the same features spoken of in question 144 shown in precisely the same way as in patents 238,100 and 224,559?

A. No.

C. Q. 147. If not, wherein is the difference?

A. The difference is that in patents 222,082 and 224,559 the elastic portion of the section or the springs composing it extend to and pass the edge of the side piece and the line of stitching which unites the elastic section and the side piece, whereas in patent 238,100 the springs do not extend to the side piece, and, as I
129 stated before, the elastic portion of the elastic section is between the edges of the side pieces.

C. Q. 148. How do you know that the springs extend beyond the overlapping edges of the side sections in patents 222,082 and 224,559 instead of stopping at those edges, as in patent 238,100?

A. Because it looks that way in the drawing, and because the specification says it is so.

C. Q. 149. Will you please point out the words stating such fact, first, in patent No. 222,082?

A. I have already done that once, but I suppose I shall have to do it again. The specification contains these words: "Into these tubes, previously puckered to the proper degree, are inserted small springs *d*, preferably of brass wire, coiled spirally with the coils in contact and each of the required length and fastened at the ends to the cloth or fastened both to the cloth and the edges of the section A A."

C. Q. 150. Do you mean to say that the language just quoted, in respect to that part which says how the wire springs are fastened, that but one interpretation must be given to it?

A. I mean to say that there is not in this specification and drawings any reasonable grounds for straining the plain meaning of these words to give them another interpretation.

C. Q. 151. I refer to this part of the quotation, "and fastened at the ends to the cloth." Now, what cloth does that mean?

A. It means the cloth of the covering material, I presume.

130 C. Q. 152. Then that part means that the covering cloth must necessarily extend beyond the ends of the springs, does it not?

A. I was not aware of it before. I have seen it otherwise.

C. Q. 153. The latter part of the quotation, "or fastened both to the cloth and the edges of the section A A," clearly and distinctly points out that there are two ways of fastening the springs—one is to the elastic section only, and the other to both the cloth and the edges of the section A A—does it not?

A. I don't think so.

C. Q. 154. Please give us your reasons why.

A. Because, from reading the whole specification, there is no indication that the springs did or were intended to stop short of the elastic section, but there are indications that they did not and were not intended to stop short of those edges, as in—for instance, in another part of this specification it is stated that across the two pieces forming the covering material of the elastic section, placed one above the other, rows of stitching are run so as to form tubes. We do not usually speak of one thing going across another if it goes only part way across. Again, the specification says that these springs can be extended only the length of the tube itself. Again, in another part of the specification it speaks of the wire springs in puckered tubes throughout their entire length; all of which words are inconsistent with the idea that the springs do not extend under and beyond the rows of fastening stitches.

C. Q. 155. I did not ask you for an interpretation of the whole specification, but only for the full interpretation and meaning of the quotation you gave in answer to question 149. The first part
131 of your quotation says that "the coiled-wire springs are fastened at the ends to the cloth, or, second, fastened both to the cloth and the edges of the sections A A." Now, that implies clearly two distinct ways of constructing and uniting the elastic section to the body of the corset, does it not?

A. I have already said that I do not think so, and I have given reasons.

C. Q. 156. If the latter part of the quotation, namely, "or fastened both to the cloth and the edges of the section A A," does not have a specific meaning, then what did you quote it for in answer to my question 149?

A. I quoted it because it appears to me to be a positive statement that the elastic section is attached to the side pieces by stitches which cross the springs, and at the same time fasten them in the covering material.

C. Q. 157. That means that the covering material of the springs and the springs between them extend together between the overlapping sections A A, does it not?

A. It means that the covering material and the springs between them is overlapped by the side piece.

C. Q. 158. That, I think, is a correct interpretation of the last part of your quotation. Now, keeping that in mind, if the coiled-wire springs do not extend under the overlapping sections A A, but are fastened to the covering cloth, there must necessarily be left the margin of the covering material beyond the ends of the springs, must there not?

A. Yes; but there is no indication of that in the patent.

C. Q. 159. I do not understand your answer. This language quoted to you is from your own quotation of the specification, and now to question 158 you reply, "Yes; but there is no indica-
132 tion of that in the patent." As your answer is founded on your own quotation, what do you mean by saying "but there is no indication of that in the patent?" Please explain.

A. I mean that your question assumed a premises and stated a conclusion, and I answered that your conclusion is correct, from the premises, but that the premises are not in the patent.

C. Q. 160. Mr. Smith, I will now show you an exemplified copy of a deposition made by one R. D. O. Smith. Do you recognize this as the deposition made by you for the defendant in this case?

A. I made a deposition similar to this. I presume it is a copy, but I cannot state from my recollection of it whether it is or not.

C. Q. 161. Were you examined as a witness in this case, on the part of the defendant therein, on or about the 16th and 17th of February, 1883, in the city of Washington, D. C., before John E. Beall, a notary public, and did you then and there on such examination give testimony in this case and sign a deposition as such witness?

A. I was requested to examine certain models in the Patent Office and make deposition as to their mode of construction. I do not remember the date, but presume it is correctly given in the question. I presume I was informed as to the parties to the suit, but if I had not found a copy of the deposition among the papers of this case since I came to Chicago I should not have known that the deposition was made in this suit. I went before Mr. Beall, as requested by Mr. Mathews, of Washington, and made a deposition as to the condition of the models which I had been requested to examine.

133 C. Q. 162. Is there any other gentleman engaged in the business of soliciting patents or in the patent business by the name of R. D. O. Smith in the city of Washington, D. C., besides yourself, to your knowledge?

A. I do not know of any.

C. Q. 163. In reply to question 4 of the direct examination you make this statement: "When I find an apparent discrepancy between the model and the drawing and the description of a patent, and that discrepancy subsequently made the subject of another patent, as in this case, I presume that the office acted intelligently and with good reason, and that the patents are properly issued." What patent is it that you refer to in which you find the discrepancy between the model, drawing, and description?

A. I referred particularly to patent No. 222,082; also patent No. 224,559.

C. Q. 164. To what patent or patents do you refer when you say "and that discrepancy subsequently made the subject of another patent, as in this case?"

A. I had reference particularly to patent 238,100.

C. Q. 165. To whom were patents 222,082 and 224,559 issued?

A. Their captions indicate that they were issued to Schilling and Florsheim.

C. Q. 166. And to whom was patent 238,100 issued?

A. Simon Florsheim.

The further taking of testimony here adjourned until Friday, August 10th, 1883, same place.

FRIDAY, *August* 10, 1883.

Met pursuant to adjournment.

Present: As before.

Cross-examination of R. O. D. SMITH resumed:

134 C. Q. 167. In answer to question 148, which was, "How do you know that the springs extend beyond the overlapping edges of the side section in patents 222,082 and 224,559 instead of stopping at those edges, as in patent 238,100?" you replied in answer, "Because it looks that way, and because the specification says it is so." Now, will you please take specification of patent No. 224,559 and show me that that was really as you stated?

A. I was asked for my own judgment in the matter. I do not profess to be able to convince you that I am correct.

C. Q. 168. Well, you stated positively in your aforesaid answer to my question that such was the fact. You said it was so "because the specification says it is so." I am not asking for arguments to be convinced, but only for the plain statements of such fact in the specification spoken of to be pointed out. Please show me where those statements are.

A. Question 148 included both the patents now inquired about. Question 149 only referred to patent 222,082, and I was verbally requested to confine my answer to that patent, which I did do. In answer to the present question I will say that *in* my judgment and opinion as I have given it in this examination is made up from the consideration of the whole case of these two patents, so far as I am acquainted with it.

Now, looking at patents 222,082 and 224,559, I find they were both applied for by the same parties, and respectively on the 10th and 4th of March, 1879. The earlier in date of application does not have in its specification any positive statements about the structure or mode of attachment of the elastic sections further than to
135 state that the ends of the springs may be fastened to the cloth at the ends of the tubes, whereas the latter of these applications does contain the positive statements which I have quoted. These patents evidently refer to different applications of the same invention, and are coupled together so closely as to date as to preclude the idea that there was probably any change or improvement made during the interval, and in my judgment it is altogether improbable that if it had been intended to describe inelastic margins that all mention of so great a novelty would have been omitted, or that the application made six days afterward would have contained positive statements to the contrary.

C. Q. 169. That does not answer my question specifically. I ask

you now to point out the statements you made in patent No. 224,559, and that only. Question 168 is repeated.

A. I was called here for the purpose of giving my opinion as an expert and my reasons for such opinion. I understand my duties and my rights, and will not be dictated to as to what I shall answer. My last answer contains its specific reply to the question asked, together with the reasons upon which I base my answer. I said the earlier in date of application does not have in its specification any positive statements about the structure or mode of attachment of the elastic section further than to state that the ends of the springs may be fastened to the cloth at the ends of the tubes.

Judge Chamasero, of counsel for defendant, objects to the first part of the answer as impertinent and not responsive to the question, and will ask the court to strike it out; and question is re-
136 peated, with the request of the witness to give a specific answer thereto without circumlocution or extraneous remarks.

Counsel for complainants objects to the judge's objection as impertinent, and requests that he make his objections without circumlocution or implied censure of the witness, as the witness has the same right to criticise the counsel as counsel has to criticise the witness.

Judge Chumasero disclaims all intention of censuring the witness, but insists that it is the right of counsel to require and the duty of the witness to give direct answers to such questions as are properly put to him, and therefore respectfully insists upon a direct answer to the question.

A. I decline to endeavor to find what I have twice said does not exist.

By Mr. ZIMMERMAN:

C. Q. 170. In reply to question 147 you said that "in patents 222,082 and 224,559 the elastic portion of the section, or the springs composing it, extend to and pass the edge of the side piece and the line of stitching which united the elastic section and the side piece." In question 148 I asked you how you knew. You replied, "Because it looks that way in the drawing, and because the specification says it is so." Now, I take that language to be plain, positive, and unmistakable, and ask you to prove your statement so made from specification of patent 224,559. Can you do it?

137 A. I can repeat my answers that I have already given this morning, namely, 168 and 169, which contain all that I can say on the subject of this question.

C. Q. 171. In the statement of invention made in patent 224,559, it says: "Our invention consists in pantaloons, drawers, or overalls as a new article of manufacture, provided with elastic straps at the sides, such straps composed of a series of spiral springs held in puckered tubes between two layers of material, and arranged lengthwise of the waistband." Then, in line 74 it says, "for the side straps D we arrange about four of such springs, side by side, and we attach the ends of such straps upon the waistband *a*, and cover said ends

by small patches of leather or fabric." Do you discover in this language just quoted anything which warrants you to conclude that the springs extend to the outer edge of the elastic section?

A. It looks so to me. The last quotation which you make says that the side straps are composed of covering material having tubes, and about four springs, and that the straps so composed, as I understand it, are fastened at their ends to the waistband, and that the ends of such straps are covered by patches. I cannot conceive any necessity for such patches except to cover the exposed ends of the springs, and there is nothing whatever in your quotation inconsistent with that view.

C. Q. 172. Now, looking at the drawing, I find that the rounded sides of the springs are shown heavily shaded, while the patches holding the ends of the springs, and also overlaying the springs, are shown plain or without shading. Now, if the springs extend under the patches, as you say, the rounding side of those patches would be higher than that of the springs, and ought to show a deeper shading than is shown on the springs. Is not that a fact?

138 A. Well, that is your conclusion. I find, however, that the straps E, which undoubtedly pass over the springs, are not shaded any more than the patches.

C. Q. 173. But the patches are not shaded at all. Would that not always indicate a plain, flat surface?

A. The surface of the strap is not flat.

C. Q. 174. It is the patches covering the ends of the elastic straps that we have been speaking of. Do you say they are not flat?

A. Well, I will say—hoping it will be once for all—that the draftsman might have put upon the drawing lines which would have been generally understood as indicating a flat surface, or he might have put upon the drawing lines which would have been generally understood as indicating a surface of a different character, but he has not done either; hence the drawing itself, outside of the line which marks the margin or edge of the side piece, does not indicate the character of the surface. For the purposes of the patent it is correct as it is, and would have been equally as correct if he had indicated the character of the surface by lines, but such lines would, in my judgment, have tended to obscure that part of the drawing more than to have relieved it.

C. Q. 175. You say that the draftsman might have put lines upon the drawing which would have been generally understood as indicating a flat surface. How, in such a case as this, would that be done?

A. What is known among draftsmen as flat-tint ruling would generally be understood as indicating a flat surface.

C. Q. 176. Would such a course have been consistent with the character of the drawing?

A. I don't think it would have been consistent with this drawing.

139 C. Q. 177. Now, referring again to the drawing of patent 222,082, I see that the end of one of the suspenders is shown with a plain end and a button-hole in it. Do you think that the ends of

the springs extend farther than the shading and puckered surface shown on the suspender indicate?

A. Well, I don't find any statement in the patent with reference to that, except that the wire springs extend the entire length of the shoulder-strap. No; I don't think that the springs extend any further than the shaded portion. I presume that the button-hole is made in a tag or tab sewed fast to the covering material of the springs.

C. Q. 178. What indications are there in the drawing to justify the presumption that a tag or tab is sewed to the covered material of the springs?

A. Well, the end of the strap through which the botton-hole is made is evidently flat, because it wouldn't serve its purpose well if otherwise. It is also evidently much narrower than the material required to cover the springs. I don't say that it was made so, but only that I think it was made so from all the indications of the case.

C. Q. 179. But I asked you for indications and you did not point them out. Is there a sign of a joint or a stitch or any such indication to show that the flat end of the suspender has been stitched to the covering material of the springs?

A. I have given you all the indications that I know of. I do not perceive any marks indicating stitches at the point indicated on this photo-lithographed reduced copy of the original drawing. If I had perceived such mark I could have spoken with certainty.

140 The further taking of testimony here adjourned to 2 p. m., same day and place.

TWO O'CLOCK P. M.

Met pursuant to adjournment.

Present: As before.

C. Q. 180. As you have before stated that both of the drawings of patents 222,082 and 224,559 were made by the same draftsman, and made correctly, then there is no doubt but that a plain margin is shown on the end of the suspender before spoken of, is there?

A. Well, I didn't say they were made by the same draftsman, in the first place. I said they were apparently made by the same draftsman. I don't know who made them, and I have said several times that I do not think there is a plain margin shown or intended to be shown at the end of the shoulder-strap referred to.

C. Q. 181. But as there is no sign or mark of any kind that a tab or piece for the button-hole was sewed onto the end of the elastic section of the shoulder-strap, how did that plain end get there; how was it formed?

A. I think it was sewed on by stitches which crossed the ends of the spring, which were not indicated by the draftsman.

C. Q. 182. What leads you to suppose that the draftsman did such a foolish thing when he so plainly showed the double lines of stitching which unite the elastic section of the back to the side pieces of the corset?

A. Well, I have already stated several times that I think so be-

cause I think that view is consistent with the case and the other is not.

C. Q. 183. Then you positively adhere to your answer made to question 148, do you?

141 A. I have not seen any reason to change my opinion.

C. Q. 184. You told me some time ago that the end of the suspender or shoulder-strap was plain and flat. It seems you have no doubt of the fact in that case also that the drawings of both patents, Nos. 222,082 and 224,559, were made or apparently were made by the same draftsman. Now, in looking at the drawings of patent 224,559 there are represented plain, flat ends, shaped just like the ends of the suspender or shoulder-strap into which you say that the spiral springs do not extend, and yet you insist that the spiral spring in the strap D of the side pieces of the overalls extend entirely under the patch covering the ends of said straps D. How do you account for the similar representations made in the drawings of those parts and the directly opposite condition of facts in regard to the springs?

A. Well, I told you why when I answered the questions before. In the overall patent the specification says that the patches cover the ends of the strap. In reference to the shoulder-strap I said it was evidently flat, because it wouldn't answer well for a button-hole without.

C. Q. 185. That does not answer my question. I asked why the draftsman should represent the two different constructions of the ends of the shoulder-strap and ends of the straps D in precisely the same way when they were so differently constructed. Can you answer that?

A. I don't know who the draftsman was, and cannot answer for his mistakes, if he made any.

C. Q. 186. In your reply to questions 146, 147, and 148 you said in plain and positive terms that the springs of the elastic sections shown in patents 222,082 and 224,559 did not show a plain

142 margin in the drawing, in contradistinction to the same shown in patent 238,100, which did show a plain margin. Now, I would like to know how you could make such positive statements and yet not be able to point out the facts to correspond with your statements?

Witness desires to know, before answering this question, how many times the examiner desires him to answer that same question, as it has been answered already three or four times.

Counsel replies only once, if it will be answered directly.

A. I have already testified that in patents 222,082 and 224,559 no plain margin is shown in the drawing, because there was none to show in the invention set forth and described in those patents, and I have several times quoted the words of the specification which convinced me of that fact. With reference to patent 238,100 the facts are the reverse—the plain margin is both shown and described.

C. Q. 187. In patent 222,082 the elastic section is placed in the

back and extending throughout the entire length of the corset. In British patent No. 3894, of 1815, the elastic section extends throughout the entire length of the corset, and is placed in front. Now, supposing that two such corsets are fitted and worn alternately by the same wearer, what difference, if any, do you suppose that the wearer would discover?

A. I don't know anything about it.

C. Q. 188. But I thought when you came here to testify as an expert you had some knowledge of such things. Do you mean to say now that you know nothing about corsets?

143 A. If you thought I came here as an expert in the wearing of corsets you was mistaken. I never wore one in my life.

C. Q. 189. Then you do not know whether one of the said corsets would be more comfortable or uncomfortable to the wearer than the other, do you?

A. No; I do not.

C. Q. 190. And then, if the elastic sections were removed from both back and front and placed under the arms, could you then tell if the change so made would produce any effect on the wearer?

A. I have already told you that I never wore corsets, and do not know anything about the sensations accompanying the wearing of them.

C. Q. 191. You say that British patent No. 3451, of 1866, is composed of two sections of cloth stitched together on a sewing machine so as to form tubes or runners, through which an India-rubber cord is drawn continuously from one tube or runner to the other, throughout the elastic section, and so as to leave a plain margin. Now, what merit was there in substituting a continuous brass wire for the rubber spring? Please give your opinion, as an expert, in regard to this fact.

A. Well, I have already testified as to that. I have already testified that rubber is unsuitable and objectionable for use in articles of apparel where it would be exposed to the action of the heat of the body and to perspiration, and that brass wire springs would not be liable to those objections. As far as that particular article is concerned I do not think, at present, there would be any patentable merit in substituting a brass spring for a rubber spring.

C. Q. 192. In claim 1, of patent 238,100, what novelty

144 is there left in it when the words "spiral metal" are taken out of it?

A. Two elements of novelty would still remain, to wit, corset and the springs arranged in groups.

C. Q. 193. Is there any novelty in a corset itself?

A. This patent is for an improvement of corsets.

C. Q. 194. I am aware of that, but that does not answer my question.

A. Well, I did answer your question. I stated what would remain.

C. Q. 195. I did not ask you what would remain, but if there was anything new in this corset provided with springs E, enclosed in

tubes and arranged in groups, and such groups composed of a single or continuous spring.

A. You asked me what novelty is there left, &c., and I answered you that there would be two elements of novelty left. Now, with reference to your present question, I will say, as I said in the beginning, that there does not appear to be any prior example of a corset having a continuous spring arranged in groups and passed through puckered tubes; therefore I consider the claim to be a proper one.

C. Q. 196. Do we not find every element of this claim distinctly set forth in British patent 3451, of 1866, in which we find two thicknesses of cloth *a b*, or other material, having tubes C, in combination with the springs E, enclosed by such tubes and arranged in groups, &c.?

A. No; there are no such groups in the English patent.

C. Q. 197. Is not the whole elastic section, taken together, provided with a group of springs?

A. The whole section is one group. In this case the section has several groups.

145 C. Q. 198. Then the sole novelty in this claim over that of the British patent referred to is that the arrangement of the springs in this patent is that they are divided into several groups instead of into one, as in the British patent; is not that the fact?

A. No.

C. Q. 199. If your answer is "no," then what else is there that should have been included as an element of novelty to make question 199 complete?

A. I do not know how to make your questions complete.

C. Q. 200. I will ask you first, as to the elastic section of British patent No. 3451, of 1866, if it has two thicknesses of cloth or other material *a b*, having tubes *c*, in combination with springs *e*, enclosed by such tubes, and such springs being all composed of a single continuous spring?

A. I don't see any letters of reference, as quoted by you, in said patent nor any such claim.

C. Q. 201. I will repeat the question. Do you find in British patent No. 3451, of 1866, two thicknesses of cloth having tubes formed in them, in combination with springs enclosed in such tubes, and such springs all formed of one continuous piece? I ask you, Do you find those elements in the British patent referred to?

A. Yes.

C. Q. 202. Now, if those springs of the British patent were arranged in small groups, would there be any difference between said patent and claim 1 of patent 238,100?

A. Yes.

C. Q. 203. What would that difference be and of what would it consist?

146 A. It would still fail to be a patent for a corset. It would still fail to disclose any way in which a corset could be made of the thing described in said patent, but it does not disclose any such groups as are referred to in the question.

C. Q. 204. Is not this elastic section of British patent expressly stated to be for a corset?

A. No.

C. Q. 205. Have you read the British patent now under consideration?

A. I have.

C. Q. 206. Then, if you have read it, will you please tell us what that invention was for?

A. It is for an elastic gusset, said to be applicable in some unexplained way to shoes, stays, &c. The user is left to find out for himself how to apply them.

C. Q. 207. Could not any ordinary workman, skilled in the art of making corsets or stays, take such elastic section and place it in a corset so as to serve its purpose?

A. Well, a skilled workman in that line can answer that question better than I can, but I think from my experience that it is exceedingly doubtful if he would make a success of it without further contrivance.

C. Q. 208. Still you think a skilled workman might possibly do it, but you disclaim knowing much, if anything, about the business, do you?

A. I disclaim being a skilled corset-maker.

C. Q. 209. In patent 238,100 we are told, in line 50 of the specification, that the covering material of the elastic section is composed of two thicknesses of cloth or other material which are sewed or woven together a portion of their width to form horizontal tubes which receive the spiral metal springs. Does the specification give an intelligent idea how that part of the invention is constructed?

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A. You misquote the specification. It says two thicknesses, *a b*, which is a direct reference to the drawing, and there is no difficulty in getting from the specification and drawing an intelligent idea how that part of the invention is constructed.

C. Q. 210. Does it tell you the manner in which the two thicknesses *a b* are woven together?

A. No; it was not necessary.

C. Q. 211. Why was it not necessary?

A. Because, it being a known art, the law presumes that all persons are acquainted with it.

C. Q. 212. Now, referring to patent 238,101, we find that claim 3 reads: "An elastic gore, gusset, or section composed of the covering material woven with tubes therein of a particular pattern to suit the location where the elastic gore, gusset, or section is intended to be used, such tubes not extending to the edges of the covering material, and spiral metal springs enclosed by such tubes and stayed by the covering material at the ends of the tubes, substantially as described and shown." Upon what, now, does the novelty of this claim depend?

A. Well, I have before testified that this patent appears to be the first instance in which there is shown an elastic gusset having single or discontinuous springs which do not extend to the edges and

are fastened at their ends to the covering material, and claim 3 is for a particular method of making the covering for said springs.

C. Q. 213. Is the particular method spoken of in the last part of your answer—I mean the particular method of making the covering material—described in the specification?

148 A. Well, I will amend my last answer and say that claim 3 is for a covering material made in a particular form by a known method.

C. Q. 214. That, then, is the novelty upon which that claim rests, is it?

A. It so appears.

C. Q. 215. Is that described in the specification?

A. It seems to be sufficiently described.

C. Q. 216. Then, suppose that the particular pattern desired would be in the form of a star or rainbow, could you tell from the specification how it was to be made?

A. Undoubtedly.

The further taking of testimony here adjourned until 10 o'clock a. m., August 11, 1883, at same place.

SATURDAY, *August 11th*, 1883—10 a. m.

Met pursuant to adjournment.

Present: As before.

C. Q. 217. Does it matter how the discontinuous springs are fastened in patent 238,101?

A. I think not as to the first claim.

C. Q. 218. Does it matter as to any of the claims of the patent?

A. The fourth claim refers to fastenings extending across the ends of the tubes, and refers, I think, to particular kinds of fastenings, which are shown and described in the patent.

C. Q. 219. Does the patent show or describe how the end fastenings for the springs are united or attached to the ends of the springs?

A. Well, it shows how the fastenings designated by the letter C are attached to the spring.

149 C. Q. 220. How is the room or place provided for the split tubes C designated in the drawing?

A. Between the two parts of the covering material which form the inelastic margin.

C. Q. 221. Then, is this covering material for the springs in any way different from that shown in British patent 3451, of 1866, except in the fact that the covering material in this case is woven together, while in the British patent the two parts of the covering material are stitched together?

A. I don't think that makes any difference.

C. Q. 222. Well, I asked you whether it was a fact that in the one the covering material was stitched and in the other woven together?

A. It is so stated, but I think it makes no difference.

C. Q. 223. Then the novelty of this elastic section lies in the fact

that the ends of the springs are held by the split tubes C, between two pieces of cloth, either stitched or woven together?

A. The novelty, as I understand it, consists in a gusset or gore having tubes which do not extend to the edge thereof and single or discontinuous springs placed in said tubes and fastened at their ends to the covering material at the ends of the tubes.

R. D. O. SMITH.

Subscribed and sworn to before me this eleventh day of August, A. D. 1883.

[SEAL.] JNO. C. MACGREGOR,
Notary Public.

150 CHARLES A. WHITNEY, the next witness produced on the part of complainants, being first duly sworn, testified as follows:

Q. 1. What is your name, age, residence, and occupation?

A. Charles A. Whitney; 48; Chicago; boots and shoes—wholesale.

Q. 2. How long have you been engaged in the boot and shoe business and what has been your experience with reference to the use of India rubber as an elastic material or fabric in use in connection with articles that are worn by people about their persons, including shoes or other articles?

A. I commenced working on shoes thirty-three years ago; been in business for myself 24 years—in Chicago. Well, we used to make a great many men's Congress gaiters and were always troubled to get elastic webbing that would stand long enough to wear the shoe out—the heat of the body would destroy the elasticity. I have a pair of shoes myself that I've had the elastics put in the second time, and the elasticity is gone in the second pair of elastics; otherwise the shoes are perfectly good now. Then I've tried to wear elastic bands around my arm to hold my sleeves up, but I can't stand it. The heat contracts the rubber so that it binds the arm and stops circulation, and I was compelled to wear a spiral spring elastic, which I have a pair on now that I've worn 12 years, and they are perfectly good.

Q. 3. Then, in your long experience with rubber, do you find that the heat contracts the rubber, and the continued heat, in con-
151 nection with the moisture communicated to the rubber from the person, soon destroys the elasticity of the rubber, so that when it is stretched it does not recover itself and soon becomes comparatively worthless as an elastic fabric? What are your views in that regard?

Objected to as leading

A. When the rubber is brought in contact with the heat of the body the rubber contracts, and the heat of the body has a tendency to destroy the elasticity. I think it is sure to become worthless, from my experience.

Cross-examination by Hon. JNO. C. CHUMASERO:

C. Q. 1. In giving your testimony, Mr. Whitney, do you speak as a professional expert or simply from your personal experience?

A. Not as a professional expert, but from my own personal experience.

C. Q. 2. Have you ever made a special study of chemistry or chemical action of the heat and moisture of the human body upon matter?

A. No, sir.

C. Q. 3. Do you not know that the chemical action of the heat or perspiration of the human body upon India rubber is to expand rather than contract?

A. No, sir.

C. Q. 4. You speak of a pair of shoes or Congress gaiters. Was the rubber portion of them spoken of by you in the form of an elastic gore, and in what portion of the gaiter was it placed?

A. Yes, sir; it was placed on either side of the ankle.

C. Q. 5. How far did it extend from the top of the gaiter downwards?

152 A. I should say from 3½ to 4 inches, and was united on the sides and bottom with the leather.

C. Q. 6. How long did you wear those shoes before they became worn out or useless?

A. The first set of elastics wore, I should think, from 3 to 4 months. I then had them replaced with new. I cannot tell—I don't remember how long they did last, but the shoes are perfectly good now, with the exception of the elastics.

C. Q. 7. Be kind enough, Mr. Whitney, to state in what condition they were when they were worn out?

A. The rubber had lost its elasticity; had stretched out and failed to recover itself.

C. Q. 8. Consequently made the gaiter flabby and loose—did not recover itself and come back and fit the foot?

A. It did not; and the rubber was worthless and the shoe is worthless without new elastic.

C. Q. 9. You say, in answer to C. Q. 7, that "the rubber had lost its elasticity and stretched out and failed to recover itself." How do you reconcile such a condition with the idea of contraction?

A. I do. When the rubber is new it will contract from the effects of the heat of the body, and, after standing a few days, it looses its elasticity, and when you stretch it out it will not recover itself to its original position; and, from my own experience, it will not recover itself at all after being worn a short time.

C. Q. 10. You mean by that that it won't contract?

A. It won't after the elasticity is destroyed.

C. Q. 11. Are you selling those kind of shoes now, Mr. Whitney?

153 A. Yes, sir; but not in such quantities as they were sold a few years ago.

CHARLES A. WHITNEY.

Subscribed and sworn to before me this 11th day of August, A. D. 1883.

[SEAL.] JNO. C. MACGREGOR,
Notary Public.

The further taking of testimony here adjourned until 10 o'clock a. m. Monday, August 13th, 1883, at same place.

MONDAY, *August 13th*, 1883.

Met pursuant to adjournment.
Present: As before.

GEORGE W. LUDLOW, a witness produced on the part of complainants, being first duly sworn, testified as follows:

Q. 1. What is your name, age, residence, and occupation?
A. George W. Ludlow; 45; Chicago, Illinois; shoe manufacturer.
Q. 2. What is the style of your firm and how long have you been engaged in your present business?
A. The firm is George W. Ludlow & Co. I have been in the business 25 years.
Q. 3. What has been your experience with the use of India rubber in elastic fabrics, such as shoes, and what is your opinion in reference to the effect that heat has upon the elasticity of India rubber, and what would be the effect of the warmth and moisture of the human body upon elastic fabrics made elastic by the use of India-rubber strips?
154 A. The heat of the body will first contract the rubber, then will rot it. We don't rely upon it. We never will buy it unless we know it to be perfectly fresh. Age will ruin it. That's about the opinion we have of rubber fabrics in our business.
Q. 4. What experience have you had in its use, upon which you base your opinions above expressed?
A. From shoes that I have worn, personally, I know that they contract with the heat. From my experience as a manufacturer, I know that the gore will not last until the shoe is half worn out, and in many cases the rubber will rot before the goods are disposed of. I have had many such cases. I will say, further, that we never keep them in stock amongst our other goods for that very reason. We never make them unless they are ordered.

Cross-examination by JNO. C. CHUMASERO:

C. Q. 1. You say the rubber will contract and then rot. How long will it be before that effect will be produced in a shoe that is worn?
A. The contracting will go on until the rotting begins—that is, the moment you get it on your foot it will draw.
C. Q. 2. That isn't the question I asked you. What I ask is, How long could a pair of those shoes be worn before they became useless from the causes you have mentioned?
A. That depends who wears them. It depends upon how long the rubber has been made and the perspiration of the foot. Some

people will wear a shoe much longer than others. Much moisture in the foot will kill it. We often have the rubber give out before the shoe is sold. Before the rubber is put into the shoe we often have it give out. We have had rubber give out within 90
155 days from the time we purchased it—apparently sound when we got it. When rubber is stretched any it will give out much quicker than when it is in its natural condition.

C. Q. 3. The perspiration or heat of the human body was not the cause of the destruction of the rubber in the case you last speak of, was it?

A. Not that case.

C. Q. 4. What was the cause in that case?

A. The unreliability of rubber as an elastic fabric.

C. Q. 5. What was the cause of the rotting in that case?

A. I can't tell you.

C. Q. 6. Might it not have been from some defect or unskillfulness in its mode of manufacture?

A. I think not. It has been our experience for 35 years; it has always been.

C. Q. 7. If you say, as you have said before, that you do not know the cause of the destruction can you say but what that might have been the cause?

A. I can make an explanation.

Counsel for defendant interrupts and says: "I don't want an explanation; I want a direct answer to my question."

Counsel for complainants informs the witness that he has a perfect right to make any explanation he desires in connection with his answers to the questions, and desires that he will take ample time to do so and not be prevented by the interruption of the counsel, but asks that he answers the questions in connection with the explanation to the best of his ability.

156 Counsel for defendant objects to complainants' counsel instructing the witness how he may testify or what course he may take in testifying while under cross-examination, and asks the examiner to direct the witness that it is his duty to answer the question put to him directly—either affirmatively or negatively in the first place—and that after doing so he may give any explanation he desires; and counsel repeats the question and calls for an answer—yes or no.

C. Q. 8. C. Q. 7 repeated.

A. It might not have been. In our opinion the rotting process is going on from the time the rubber is made; that the elasticity, moisture, and heat of the body destroys it sooner than otherwise.

C. Q. 9. I did not ask you in reference to the rubber in shoes that were being worn as affected by the heat or moisture of the body, nor did I ask you when the process of rotting commenced. You stated that the rubber you often found rotten and worthless before you put it into shoes at all. I desire to call your attention to this fact, and therefore repeat the question again, which please answer. (Question repeated). What I wish to direct your attention to is the rubber

which you say was worthless or "gave out" before you used it in shoes, and with that explanation C. Q. 7 is repeated.

A. I have answered that question before. I think not. I don't think it is possible to make rubber that will not give out in time.

C. Q. 10. Is it possible to make anything that won't give out in time?

157 A. I give it up.

C. Q. 11. Do you know the process of manufacture of this rubber?

A. I do not. I think it is a secret amongst manufacturers.

C. Q. 12. Is it your only reason for thinking that this rotting or giving out of the rubber was from defect in its manufacture that you do not think it is possible to make anything that will not give out in time?

A. I don't think it is any defect in the rubber in manufacturing.

C. Q. 13. I do not ask you now whether it was or was not your opinion that the defect was the result of manufacture. You have said before you did not think so. I am now asking the basis of that opinion. Please hear the question read and answer it, yes or no. (C. Q. 12 repeated.)

A. I cannot answer that with that last clause in there, because I never made an assertion of that kind.

C. Q. 14. Are you a chemist or versed in the laws of physics?

A. I am not.

C. Q. 15. Can you tell us the effect of heat upon matter as regards expansion or contraction?

A. Not upon matter.

C. Q. 16. Upon what can you, then?

A. Upon minerals. Upon iron heat and cold has its effect of contracting or expanding.

C. Q. 17. You say that you cannot tell its effect upon matter, but you can upon minerals and iron. By what authority or upon what ground do you deny iron or minerals the privilege of being matter?

158 A. I don't deny it.

C. Q. 18. Under what condition will heat contract or expand a mineral?

A. Heat will expand and cold contract. That's all I know about it.

C. Q. 19. Can you give an instance in which a mineral was contracted by heat?

A. No.

C. Q. 20. Or in which it was expanded by heat?

A. Heat will always expand iron.

C. Q. 21. Does it contract iron?

A. I never heard of it.

C. Q. 22. Can you give us any instance within your knowledge in which iron or any mineral or any other matter was contracted by heat?

A. No.

Redirect examination by L. L. COBURN, Esq.:

R. D. Q. 1. In your experience in making and handling rubber goods and goods with rubber elasting gorings, what season of the year or what temperature more rapidly affects the rubber to rot it or destroy its elasticity?

A. Summer weather or summer temperature.

R. D. Q. 2. What is the experience of the trade, so far as you know, and what has been your experience with reference to carrying a stock of rubber goods or shoes with rubber elastic gorings through the summer?

A. They must be kept in a very cool place or they become worthless.

R. D. Q. 3. You have stated that, in your opinion, the warmth of the person would cause the live, fresh rubber elastic material
159 to contract, I think. In answer to the last cross-question, among other things, you were asked if you could give an instance in which heat contracted matter and you said, "No." Do you wish to make any explanation in reference to your understanding of those questions and what you intended by your answers?

A. I don't regard rubber as a mineral, to begin with; it's a vegetable, and has no connection with the iron, as far as affected by heat and cold.

R. D. Q. 4. Do you mean by that that so far as your answer to the last cross-interrogatory is concerned you had reference to minerals or iron?

Counsel for defendant objects to the question on the ground that the counsel, having directed his attention to any explanation the witness may desire to make, can go no further, and has no right to lead the witness or tell him what he wants to elicit.

A. I do.

Answer objected to by counsel for defendant.

Recross-examination by JNO. C. CHUMASERO:

R. C. Q. 1. In your answer to cross-question 22 you use the term matter. What do you understand by the term "matter?"

A. As distinct from minerals rubber is a matter, but is not a mineral.

R. C. Q. 2. Did you know that rubber is matter when you answered cross-question 22?

(R. C. Q. 1 and 2 waived.)

R. C. Q. 3. In cross-question 22 you were asked, "Can you give us any instance within your knowledge in which iron or any mineral or any other matter was contracted by heat?" to which you
160 answered, "No." I now ask you whether at the time you gave that answer you knew that rubber was matter or whether you have learned it since.

A. I always knew it.

GEORGE W. LUDLOW.

Subscribed and sworn to before me this 13th day of August, 1883.
[SEAL.] JNO. C. MACGREGOR,
Notary Public.

Further taking of testimony adjourned till 2 o'clock p. m., same day and place.

Met pursuant to adjournment.
Present: As before.

MARY M. BEAVIS, the next witness, being duly sworn, testified as follows:

Q. 1. What is your name, age, residence, and occupation?
A. Mrs. Mary M. Beavis; 37; 200 S. Wood St., Chicago, Illinois.
Q. 2. Are you acquainted with a corset known as the Ball health preserving corset, and have worn the same; if so, what has been your experience with it, and how do you find it to compare with other corsets, so far as the ease and comfort of the wearer is concerned, and its utility as a corset?

Counsel for the defendant objects to the question as immaterial and irrelevant and as not germane to the issue now being investigated.

A. Yes; I am acquainted with the corset, and have worn it for some time, and am wearing it at present. My experience
161 with it has been better than with any corset I ever wore. I have been in poor health for several years. I was obliged to give up wearing corsets until I got this. I find this quite easy and comfortable. I have stomach trouble and couldn't wear anything that pressed at all against my stomach. I found no trouble with this, the spring at the side giving elasticity enough, so that the pressure does not hurt my stomach at all. I have tried to wear another corset since I commenced to wear this, and found it so uncomfortable that I couldn't wear it.

Q. 3. What has been you experience with reference to the uniformity of the elasticity of the springs in the sides of this Ball corset after the corset becomes once shaped to the person? Do the springs in the elastic side sections remain of about the same tension, giving about the same pressure, until the cloth part of the corset is worn out, or do the springs vary by either growing tighter with wear, or looser and more flexible, or are they affected in any way by the heat or warmth or moisture from the person so as to gradually become useless or comparatively useless? Please state what your experience with the corset has been in these respects.

A. Well, I've never found them to change a particle. They keep their shape perfectly, and they give easily with every motion of the body. The coils or springs in the sides are as perfect when the corset is worn out as when I first put it on. I was in poor health and traveled a great deal for two years, and while traveling I was lying down a great deal of the time, and I found it gave to the body, and when worn out the spring was still good, and I never found the

heat of the body made any difference at all. I was in a
162 Southern climate, and the spring remained the same. The moisture of the person has no effect on it whatever.

Q. 4. How long have you worn the "Ball corset"—about how long?

A. Well, I can't tell exactly that; about three years; perhaps longer. Ever since they were first manufactured by the "Ball Corset Co."

Cross-examination by JNO. C. CHUMASERO:

C. Q. 1. Are you related in any way to Mr. Ball or Mr. Florsheim? If so, in what way?

A. Distant—by marriage.

C. Q. 2. State the relationship, and to which of the parties you are related.

A. Mrs. Ball—Mr. Ball's wife—a cousin of Mrs. Ball.

C. Q. 3. Have you and Mr. or Mrs. Ball talked over these corset matters; and, if so, how frequently, and when?

A. We have talked over the merits of the corsets a great many times, but nothing in regard to this matter.

C. Q. 4. Were you subpœnaed to testify to-day in this case, or do you appear as a voluntary witness?

A. I came down with Mr. Ball this afternoon.

C. Q. 5. Were you subpœnaed or not?

A. Well, I suppose not; I came without a subpœna.

C. Q. 6. What corsets did you wear previous to wearing what you call the Ball corset?

A. I have worn several different kinds. I was wearing what was called Dr. Warner's corset, I think.

C. Q. 7. Did you ever wear the Schilling and Florsheim corset, or the Schilling corset?

A. I never did. If I did I didn't know it.

163 C. Q. 8. Did the Warner corset that you spoke of, Mrs. Beavis, have springs?

A. No.

C. Q. 9. Did any of the corsets that you wore previous to wearing Brother Ball's corsets have springs?

A. Did not; they did not.

MRS. MARY M. BEAVIS.

Subscribed and sworn to before me this 13th day of August, 1883.

[SEAL.] JNO. C. MACGREGOR,
Notary Public.

HATTIE P. BISSETT, the next witness, being duly sworn, testified as follows:

Q. 1. What is your name, age, and residence?

A. Mrs. Hattie P. Bissett; 30 years; Chicago, Illinois.

Q. 2. Do you know of a corset called "Ball's health-preserving corset," made with elastic sections in each side of the corset, having coiled-wire springs? If so, have you worn such corsets—for about

how long? How do you find said corsets to compare with other corsets, so far as the comfort of the wearer is concerned, as well as the durability of the corset?

A. I know the corset. I have worn it for about, I think, nearly two years. I was at that time an invalid and had a gread deal of trouble in regard to corsets—in regard to wearing corsets. My physician had for some time been urging me to leave off corsets altogether, as he thought they were doing me a very great injury. I had about made up my mind to do so when I heard of these corsets. I procured one of them and commenced wearing it
164 and found almost immediate relief. I showed it to my physician and explained the merits of it, and he was perfectly satisfied to have me wear it. I recommended it to a great many of my friends, who also found relief from it; and as to the durability of the corset I think it wears better than any corset I ever wore, and keeps its shape better. I had a lady friend who had never worn corsets, and I recommended these corsets to her, and she has been wearing them for some time—probably about a year and a half.

Q. 3. What has been your experience with these corsets with reference to the springs remaining of about the same tension, so that the elastic sections keep or retain about the same elasticity till the corsets are worn out, or do the springs grow more flexible and lose their recoil or elasticity, either from use or from being affected by the heat and moisture of the person. How are the coiled-wire springs and the elasticity of the elastic sections affected in these respects, if at all? And give your opinion in reference to the merits of the corset as compared with other corsets which you have worn?

A. Why, the springs remain just the same. When the corset is worn out the springs are still perfect. They are not in any way affected by the heat or moisture of the body. I have worn them when I lived at the Sandwich Islands, where the heat is intense. I think them the most wonderful invention of the age for the health and comfort of woman.

Cross-examination by JNO. C. CHUMASERO:

C. Q. 1. What relation do you bear to these parties or to any of them, Mrs. Bissett?

A. I am Mrs. Ball's sister.

165 C. Q. 2. When did you wear this corset in the Sandwich Islands?

A. About a year and half ago.

C. Q. 3. Did you deem it any protection against the yellow fever?

A. I believe I am better prepared to answer questions in regard to the Ball corset than with the yellow fever.

C. Q. 4. You having stated, in substance, that this particular corset was the most inestimable boon ever vouchsafed by man to the female sex, I did not know but yellow fever was included in the catalogue of ills of which this corset is claimed to be a preventive. Am I mistaken?

A. Well, I think if I had yellow fever I should don my health-preserving corset.

C. Q. 5. Where did you procure the first Ball corset you ever wore?

A. In San Francisco, where I was living at that time.

C. Q. 6. At whose suggestion?

A. Mr. Ball had advertised in the San Francisco papers. I saw the advertisement and sent to the firm for a corset, and they sent me one.

C. Q. 7. What corset had you been in the habit of wearing previous to your wearing the Ball corset?

A. I had tried to wear a great many different corsets. I had worn Madam Foy's, Froude's, Warner Bros., and had also had corsets made to order.

C. Q. 8. Did any of the corsets which you wore previous to your wearing the Ball corset contain springs?

A. No.

MRS. HATTIE P. BISSETT.

166 Subscribed and sworn to before me this 13th day of August, 1883.

[SEAL.] JNO. C. MACGREGOR,
Notary Public.

The further taking of testimony here adjourned until 10 o'clock a. m., Tuesday, August 14th, at same place.

TUESDAY, *August 14th*, 1883.

Met pursuant to adjournment.

Present as before.

The next witness, THOMAS H. BALL, being recalled, testified as follows:

Q. 1. Will you state what your experience has been in connection with any litigation in which the defendant Schilling has claimed to be the inventor of the devices patented in the patents involved in this litigation, stating generally what you know that Schilling has done in reference to making applications for patents on corsets tending to show that he did not claim the said invention and tending to show that he did claim said inventions, giving approximately the dates as near as you can?

Objected to as incompetent.

A. In the spring of 1880, while investigating certain patents relating to corsets, I found a certain patent, dated Nov. 25th, 1879. A certain patent on corsets had been issued by the Patent Office to Gustav Schilling and Simon Florsheim. Thinking that I saw the germ of something that might be made valuable, I met both parties with the idea of buying the patent. The negotiations resulted in the ultimate formation of the "Chicago Corset Co." for the manufacture of corsets. I commenced, in the fall of 1880, manu-

167 facture of coil spring elastic sections, and delivered them to a corset manufacturer, who delivered to us completed corsets practically the same as those we commenced making ourselves Jan.

1st, 1881, and have been making ever since. Mr. Florsheim informed me that he was the sole inventor of what I considered, as a corset manufacturer, the only feature of value shown in our corset of to-day. He applied for a patent covering this feature, which patent was granted Feb. 22nd, 1881. Mr. Florsheim had previous to this informed me that Mr. Schilling had applied for a corset patent in the fall of 1879—I think it was in the fall of 1879—in which he said Mr. Schilling didn't claim Mr. Florsheim's invention, and Mr. Schilling has given testimony in this case corroborating the statement of Mr. Florsheim regarding his (Schilling's) individual application on a patent on a corset, which patent was refused by the office. After we had been manufacturing corsets for about a year, spending large sums in advertising our goods and getting a large sale on them through our efforts in that direction and production of a first-class article, Mr. Schilling applied in the winter of 1881–'2 for a patent on corsets covering, practically, the same thing that we were manufacturing under our patent granted nearly a year before. The Commissioner of Patents, under date of letter Dec. 14th, 1881, to S. Florsheim, Chicago, Illinois, notifies us of the application filed by Gustav Schilling, and granted an interference for the taking of testimony, so that he may decide who is the rightful inventor. After taking a large amount of testimony, which I suppose was submitted to the Commissioner of Patents or the proper officer, a letter, under date of May 5th, 1882, signed by E. M. Marble, Commissioner of Patents, was received. This letter says: "Gustav Schilling having abandoned the application herein involved, the interference is dissolved."

168 Counsel for defendant objects in due season to all those points contained in the foregoing answer which relate to the conversations between the witness and Florsheim and information derived from Florsheim by witness as to his being the sole inventor, and all conversations between Florsheim and the witness; also as to witness' application for a patent and the time of the granting of the same; also when the witness says that Florsheim told him that Schilling didn't claim the invention; also in reference to Schilling's application for a patent and the refusal of the Patent Office to grant the same; also as to Mr. Schilling's application for patent in the winter of 1881–'2, mentioned by the witness; also as to the contents of the letter from the Commissioner of Patents to Florsheim, dated Dec. 14th, 1881, in regard to the interference; also as to the witness' supposition that the testimony on the interference was submitted to the Commissioner of Patents, or the proper officer; also as to the contents of the alleged letters from the Commissioner of Patents, signed by E. M. Marble, May 5th, 1882—all of the said testimony there objected to being incompetent, irrelevant, irresponsive to the question, and impertinent; and the counsel for defendant will ask the court to have the same stricken out.

Counsel for complainant offers in evidence the Patent Commissioner's letter declaring the interference above referred to, and also

the letter dissolving the interference above referred to. The
169 same are marked "Complainants' Exhibits Schilling *vs.* Florsheim Interference, Letters 1 and 2."

Counsel for defendant objects to the introduction of the letters on the ground that there is no proof of their genuineness.

Q. 2. Please state what the conduct of Mr. Schilling has been with reference to the manufacture of corsets since your firm established the manufacture and sale of corsets under the Florsheim patents; whether he has confined his manufacture to the style of corset shown in the Florsheim and Schilling patent or has adopted the style and form of structure made and sold by your firm under the Florsheim patents; whether he has imitated the names adopted by you, copied all of your circulars and advertisements, as well as all modifications of structures, and whether he and those associated with him have copied your machinery and methods of making the corset, giving a full statement with reference to the conduct of Mr. Schilling in those regards.

Counsel for defendant asks the examiner to note the fact that the witness, at the close of the question put by complainants' counsel, voluntarily asks him whether he means to include the conduct of Schilling as to sales.

A. The evident desire of Mr. Schilling and those associated with him has been to manufacture a corset as near like ours in all respects as to deceive every one except an expert in corsets, and differing from ours only in quality of material, workmanship, and value, instead of confining himself to the manufacture of a corset
170 such as shown and described in letters patent granted to Schilling and Florsheim Nov. 25th, 1879. I have never known or heard of his placing a corset of that construction on sale or offering it for sale, although he marks the corsets made exactly like ours "Patented Nov. 25th, 1879," and all corsets that I have ever seen of his manufacture, and I have seen a great many, were made like ours, even to the extent of taking our peculiar cut and shape for his own. We make one style of corset which we call "health-preserving corset." We make another style, which we call "self-adjusting corset." Mr. Schilling, in his corset, has adopted both names by using the word "self-adjusting" on the end of his box and by referring in all other printed matter about the box to the corset as a health-preserving corset. He has copied very closely almost all of our original modes and styles of advertising through labels, circulars, electrotype cuts, furnished to dealers for local advertising, and has seemed to consider that what was an original idea with us must be valuable and worth appropriating by him and his associates. We have much original and, on account of its being experimental until completed, expensive machinery for manufacturing our sections, most of which we have no sooner perfected than he and his associates have succeeded in getting duplicated and are using it, although we have such machines and appliances patented, which patents, I presume, are their source of information as to what we are using.

The above answer objected to by defendant's counsel as being incompetent or impertinent as to all matters therein contained, based upon the opinion, surmises, or information of the witness,
171 and not within his own personal knowledge, and moves to strike such matters out.

Q. 3. Have you commenced suit against Schilling or Schilling and others for the infringement of any of your machinery patents, above referred to as being copied by Schilling or Schilling and his associates in their manufacture of your patented corset?

Objected to by defendant's counsel as incompetent, and that if any suit has been commenced it must be shown by the proper evidence.

A. We have commenced suits in Chicago against Schilling and his associates at that time, and in Detroit against Schilling and his present associates, for using our patented machinery.

Q. 4. Explain how and in what way the infringement of Schilling and his associates, of your patents and their copying of all your names, circulars, and advertisements enables them to take the benefit of your large outlay in creating a market and building up a trade, and in what way they are enabled to derive a profit by such practices.

Objected to as incompetent and irrelevant, calling for the opinion of the witness, and in other respects incompetent.

A. By their representations to the trade that their corset is exactly the same as ours in every respect; that they are the sole and exclusive owners of patents covering this article, and suits having been decided in their favor against us. Manufacturing an inferior article from cheaper material, they are able and do sell their
172 corsets at a lower price or at a price with which we cannot compete without making a poor article or losing money on the corset we are now making. The close resemblance to our corset has enabled unprincipled dealers to sell it for our corset, and I have been informed by parties, who make affidavit to the truth of their assertion, that Schilling and his associates have frequently made use of the argument to induce a merchant to buy their goods, that they could be sold for ours.

Ours had such a good reputation and sale, through our large expenditures of money for advertising, &c., that it was quite an object for the merchant to get something like ours; that he could sell as ours at a lower price as against the competition of his neighbor who was selling the genuine article.

Defendant's counsel objects to the answer and moves to strike it out, with costs.

The next witness, ISABELLA S. HOTCHKISS, being called by complainant, testified as follows:

Q. 1. What is your name, age, residence, and occupation?

A. Isabella S. Hotchkiss; age, 42; Chicago, Illinois; physician.

Q. 2. Do you know of a corset known as the "Ball health-pre-

serving corset," made with elastic side sections with coil-wire springs? If so, have you worn it; what is your opinion about it; how does it compare with other corsets as regards ease and comfort to the wearer—as to durability; do the springs retain a uniform elasticity; are they affected by the heat and moisture of the body, and what is your opinion, as a physician, in reference to the healthfulness of the corset?

173 A. I do know of it, and ever since knowing of it I have worn none other. I consider, owing to the wire spring at the side, it superior to any other I have seen. Well, I found the springs wear thoroughly as well as the remainder of the corset. I think they do retain a uniform elasticity. I have not noticed their being affected by the heat and moisture of the body. If corsets must be worn they are superior to anything I have ever seen in that line.

Cross-examined by JNO. C. CHUMASERO:

C. Q. 1. You say, if corsets must be worn, they are superior to any others. In your opinion, as a physician, is it necessary that corsets should be worn at all?

A. Yes. It's not absolutely necessary, but they add greatly to the comfort.

C. Q. 2. Much has been said here about the splendid material used in these corsets. What is your experience as to the quality of the material used in these corsets as compared with others that you have worn?

A. It is quite as good as any I can obtain for the same money; in fact, I have considered them very cheap at the price.

C. Q. 3. You made a remark while testifying a few minutes ago in reference to the material in these corsets which the examiner did not take down. Will you please repeat it?

A. There are corsets, you understand, which are sold for 5 or 6 dollars a pair. The cotton material of these corsets is not equal to that in those.

C. Q. 4. You spoke also of a spot. What was there in reference to that?

174 A. That was in reference to a corset which I was throwing aside as having worn out. I noticed a little discoloration from the wire. Practically it was not injurious in the least in any way.

C. Q. 5. What do you mean by injurious?

A. Unhealthful.

C. Q. 6. On what part of the corset was this discoloration or corrosion?

A. It was where one of the wires joins the body of the corset.

C. Q. 7. Did you notice what kind of a wire it was—of what it was made?

A. I did not.

C. Q. 8. Supposing the wire to be made of brass, what effect, if any, in your judgment, would its direct and continued contact with and application of the perspiration, warmth, or humidity of the human body have upon the wires?

A. It might discolor them.

C. Q. 9. Would it not produce verdigris? I ask you the question as an M. D.

A. It might.

C. Q. 10. In your opinion, as a physician, would the contact of verdigris with the human body, while in a state of perspiration or otherwise, have an injurious effect, or might the body be injured by its absorption?

A. If the verdigris were brought into direct contact with the body it might, and the verdigris was of an appreciable quantity. From my experience with this corset I don't think sufficient quantity would be produced, if they were worn as corsets usually are.

C. Q. 11. Do you now mean to be understood as confining the production of this verdigris to one end of the wires or the whole sections of the wires?

175 A. I don't understand the question.

C. Q. 12. Supposing that the entire surface of the wires were coated with verdigris, would that, in your opinion, produce sufficient quantity to cause injury by absorption?

A. If we could conceive of those being entirely covered with verdigris and the corset worn next to the skin it might be injurious; but practically I think no such experience would be found with the corset.

C. Q. 13. If such should be the case you would hold "Ball's health-preserving corset" as a thing to be avoided, would you not?

A. Yes; certainly.

C. Q. 14. How many of these corsets did you ever wear, Mrs. Hotchkiss?

A. I have worn them continuously for two years—I think about six pairs. I can't say positively.

C. Q. 15. Did you ever wear corsets with springs until you wore these corsets?

A. No; I did not.

C. Q. 16. Are you in any way related to Mr. Ball or Florsheim or any of the complainants in this case?

A. I am not.

ISABELLA S. HOTCHKISS, *M. D.*

Subscribed and sworn to before me this 14th day of August, 1883.

[SEAL.] JNO. C. MACGREGOR,
Notary Public.

176 Examination of Mr. BALL here resumed:

Q. 5. Since you have established a large trade for this patented corset which you are making, has Mr. Schilling or any one representing him made any threats that he would destroy your patents unless you would pay him money or give him an interest in these patents? If so, state substantially what he has done in this regard.

Question objected to by defendant's counsel so far as relates to anything said by anybody except Schilling himself.

A. I cannot say that Mr. Schilling has personally made any direct threats of that character to me, but I have been advised by his attorney, Judge Chumasero, on at least two occasions, that it would be the best thing we could do to meet his clients and settle this lawsuit upon the basis of granting his clients a free license to manufacture the same corset that we are now manufacturing, in which case he would fix up his side in this controversy in such shape that we would be sure of gaining a decision in our favor sustaining our patent, in which case the combination formed with his clients would be, in his opinion, sufficiently strong to maintain our rights to our patent against all infringers. Not seeing the advantages to ourselves, which he claimed, in such a combination, the proposition was declined. When the question was asked me by him how we proposed to get over certain English patents which they had introduced into this case, I construed this question to mean that if we didn't give his clients what he asked for them that they would be used for the purpose of breaking up our patent, and if I did the knowledge of
177 the existence of such patents would be suppressed, making it appear to me that if his clients could have an equal right with ourselves in this patent, in his opinion, the patent was good; if not, it was very weak.

Further taking of testimony here adjourned till 10 o'clock a. m. Wednesday, August 15th, 1883, at same place.

WEDNESDAY, *August 15th*, 1883.

Met pursuant to adjournment.
Present: As before.

Cross-examination of THOMAS H. BALL by JNO. C. CHUMASERO:

C. Q. 1. Mr. Ball, you say that in the spring of 1880 you were investigating certain patents in relation to corsets, and that you discovered the patent granted to Schilling and Florsheim Nov. 25th, 1879; that in such investigation you saw the germ of something that might be made valuable. What was that germ?

A. Generally speaking, it was in the proper application of the coil-spring elastic section to corsets.

C. Q. 2. You say "generally." What was it particularly?

A. I had no particular knowledge at that time; only a general knowledge or a general idea formed from noticing the fact of the use of coiled-wire springs in this patent.

C. Q. 3. In what way were the coiled-wire springs used in that patent?

A. The only knowledge that I have of the way those coiled-wire springs are used in that patent are fully set forth by the claims and specifications of that patent.

C. Q. 3½. Question repeated.

A. Answer repeated. I refer the questioner to the patent as my source of knowledge.

178 C. Q. 4. I ask you your present knowledge, aside from any reference I may make to the patent. State your present knowl-

edge as to how those coiled-wire springs were used in the corsets and of the patent that you discovered in your investigation.

A. You ask me a question with reference to a specific patent that I can answer no further than by referring to that patent. I can't go beyond the fountain-head, which is that patent.

C. Q. 5. You say, in your answer to C. Q. 2, that from that investigation you formed an idea from noticing the fact of the use of coiled-wire springs in that patent. In what way were the coiled-wire springs used in that patent?

A. As my questioner will not allow me to refer to the patent, which is lying on the table immediately in front of me, I shall be obliged to answer his question from memory as to the claims of that patent. I believe, in the general specifications of that patent, that when reference is made to the use of an elastic section that this section is rendered elastic by the use of coiled-wire springs. In the claims of the patent they claim to use a coiled-wire spring in the shoulder-straps of this corset, and to use an elastic section in the back of the corset instead of lacers, that are generally used in that place, and they also apply an elastic patch or section at the hips of the corset.

C. Q. 6. You say that in the fall of 1880 you commenced the manufacture of coiled-spring elastic sections and delivered them to a corset-maker, who afterwards delivered to you completed corsets. Who was that manufacturer and where did he reside?

179 A. I think the style of the concern at that time was "Gage Bros.," of Chicago, Illinois.

C. Q. 7. You say that Mr. Florsheim told you that he was the sole inventor of what you consider the only feature of value shown in your corsets of to-day. What was that feature?

A. As a corset manufacturerer the feature shown in our corset of to-day is the one that makes it such that it produces a corset with coiled spring elastic sections for the first time that are satisfactory to the wearer, profitable to the dealer and manufacturer, and has enabled us to build up a large business and interest the leading manufacturers of England and France, with whom we have made arrangements to manufacture our goods under patents obtained in those countries, on the corset and the machinery for manufacturing the elastic sections.

Defendant's counsel wishes it stated and to appear that he objected at the time and in due season to the statements of the witness, which are not responsive to the question; that the witness insisted upon going on, and defendant's counsel moves to strike out the whole of the answer, so far as it is irresponsive to the question, and the question is repeated.

C. Q. 7½. Cross-question 7 repeated.

A. The answer that Judge Chumasero refers to as having been made in my direct examination was answered as a corset manufacturer. What Mr. Florsheim told me was that he was the sole inventor of a coiled spring elastic section in which a continuous coiled-wire spring was used and arranged in groups to regulate the

elasticity of the section at different points requiring more or
180 less tension than at other points, each group connected, and a plain margin beyond the ends of the spring so arranged, and its application to both sides of the corset, the sections extending from under the arms down over the hips.

C. Q. 8. Have you any personal knowledge of the facts you now state, aside from the knowledge given you by Mr. Florsheim, as to the priority of the invention?

A. As I didn't see Mr. Florsheim make it, I suppose, in a legal sense, I had no personal knowledge that he did. But from the fact that I have through three years intimate——

Defendant's counsel interrupts the witness and insists upon the witness refraining in stating irrelevant and incompetent matter, he having already fully answered the question.

Counsel for complainant objects to interruption of the witness made by the counsel before the witness finishes his answer, and informs the witness that he can answer the question in such manner as he may deem proper, leaving it for the court to determine what is relevant; and the opinion of counsel, expressed by interruption, has nothing to do with it, and should not be influenced by remarks of counsel nor prevented from given such answers as he may deem fit. The counsel can reserve his rights by objecting to the questions after they are asked and to the answers after they are made, and has no right to interfere or interrupt for the purpose of interposing objections while the question is being asked nor while the answers are being given.

181 Defendant's counsel states that from the conduct of the witness, who is one of the complainants in this case, in insisting in his answers to previous questions upon stating immaterial and improper remarks and opinions of his own after he had answered the questions properly, and being entirely irresponsive thereto, he deems it his duty and his right to make his objections at the very earliest opportunity.

Counsel for complainants submits to the court that the counsel for defendant has no right to act as judge in the case and determine what is proper in an answer, what is material, what is responsive, and interrupt the witness and dictate to the magistrate what part of the answers shall be written down and what not written down, and asks the magistrate to pay no attention hereafter to the interruption of either counsel, made either while a question is being asked or while a question is being answered, but take the language of the witness until the answer is completed, and then give counsel opportunity to interpose objections.

I was about to say, when interrupted, that from a three years' intimate social and business relations with Mr. Florsheim, finding him a man of absolute truth and with a high sense of honor, that what he told me was true. I could freely say, as a business man, that I know it to be a fact, if I could not say so in the legal sense.

Defendant's counsel moves to strike out the whole of the last answer of the witness as incompetent.

182 C. Q. 9. You are now on oath as a witness upon the stand, and have sworn to tell the truth. Do I understand you to make any distinction in giving testimony as a witness or in stating a fact as a business man?

A. I am aware of that fact. I don't know what you understand, as I am not obliged to furnish understanding for the other side, but shall keep myself employed in trying to tell the truth, the whole truth, and nothing but the truth as I understand it.

C. Q. 10. Do you know that when you are placed upon the stand and sworn as a witness to state facts pertaining to the issue within your own knowledge that it is improper to state what you know from being told by others or mere hearsay?

A. If I remember rightly the oath I took as a witness it was to state truthfully facts to the best of my knowledge and belief, and where I have been unable to state facts from personal and absolute knowledge that they are such I have endeavored to qualify my statements by stating why I believed them to be facts.

C. Q. 10½. Cross-question 10 repeated.

A. I didn't know that I was put on the stand for any such purpose or that I was confined to any such limit.

C. Q. 11. You stated a short time ago that you were sworn as a witness to testify the truth, the whole truth, and nothing but the truth. Do you understand that to mean a right to testify to hearsay testimony?

A. I understand it to mean that I am under obligation to answer the questions which are asked as truthfully as I can, but that I have the privilege of answering them in my own way.

C. Q. 12. Do you think that as a witness you have a right to
183 testify as to what has been told you by Florsheim or any one else, in spite of the objections thereto by counsel?

A. I do. Because, as a business man, I believe it to be as much a fact that Mr. Florsheim made the invention which he said he did, and as he said he did, as though I had seen it made with my own eyes.

C. Q. 13. How often have you been sworn as a witness before now?

A. I never remember to have been a witness in any legal case prior to this one.

C. Q. 14. How was this "Chicago Corset Co.," of which you speak, started?

A. As at present organized, I think it was a short time prior to January 1st, '81, although we generally consider our organization as dating January 1st, '81.

C. Q. 15. Who composed that organization?

A. Thomas H. Ball, Herman Prenzlauer, and Simon Florsheim.

C. Q. 16. Is it an incorporated company?

A. It is not.

C. Q. 17. Since its organization, under what name has it been operating and soliciting business?

A. Under the style and name "Chicago Corset Co.," Ball, Prenzlauer & Co., proprietors.

C. Q. 18. You say that Schilling and his associates have duplicated

and are using machines invented and perfected by you. What machines do you refer to? Describe them.

A. I don't find any such statement. I made no statement that they were using machines or machinery invented by myself, but that they were using machinery which was perfected by us and on which we hold patents.

184 C. Q. 19. Who do you claim was the inventor of that machinery?

A. One machine, to which I referred, was invented by one Hugo Schmidt, and is a wire-coiling machine. The other machines or appliances, to which I referred, are for the purpose of crimping the cloth, holding the cloth in crimp while inserting the wire springs, and a needle attachment to facilitate the threading of the wire through the section; all of which is my invention.

C. Q. 20. When did you make that invention?

A. Through the summer and fall of 1880.

C. Q. 21. Have you a patent for that invention; and, if so, when did you make your application, and when was the patent granted?

A. I do not remember, and cannot answer either of those questions without reference to the patent, which is on file in my office. I find, on referring to a copy of said patent, just handed me, that the application was filed April 10th, 1882; patent was dated Oct. 17th, 1882.

The further taking of testimony adjourned till 2 o'clock p. m., same place.

Met pursuant to adjournment; present as before, and cross-examination of witness, THOMAS H. BALL, resumed.

C. Q. 22. I refer you now to the patent for crimping and preparing elastic fabric, about which you have been just testifying, and which invention you say was made by you some time in the summer and fall of 1880. When and how soon after you had conceived the idea did you commence making experiments and work to reduce it to tangible form?

185 Question objected to as improper and immaterial and not cross-examination, and is clearly an attempt to get dates in this suit for the purpose of anticipating them in another suit in which the dates of invention may be material, and the counsel informs the witness that, in his opinion, it is a matter that he is not obliged to divulge in this examination. He can state when he applied for the patent, as that is a matter of record.

Defendant's counsel objects to the right or effort of complainants' counsel to advise or instruct the witness what questions he shall or shall not answer, and advises the witness that if he refuses to answer, being one of the complainants in this cause, it will be at his peril.

Counsel for complainants considers it a duty to inform the witness of his rights and of the apparent perquisites of the questions, and will further state that he is willing to submit the question to the court for instructions as to whether the witness is obliged to divulge

the dates of invention, with the history of perfecting an invention patented by him in patents not involved in this suit, when witness has not been interrogated in the direct examination in reference to the date of said invention; and he will also inform the witness, in view of the threat just made the witness by the counsel for the defendant, that he can incur no other peril than that of being ordered by the court to answer questions calling for such dates and history, provided the counsel avails himself of his privilege of having such questions certified to the court for its rulings.

186 A. As this same patent is the basis of a suit which we have brought against these same defendants for appropriating and using, and they set up their usual plea in their answer that we or I stole it from them, and being advised by my attorney, whose advice I consider more valuable than advice from the other side, I accept the perilous situation and decline to answer.

C. Q. 23. The question is repeated.

A. Under the advice of my attorney, I decline to answer.

C. Q. 24. The question is again repeated.

A. And an answer, other than that given, is declined.

C. Q. 25. Do you positively refuse to answer the question?

A. Without being advised by an authority higher than the defendant's counsel that I must, I do.

C. Q. 26. Question repeated, and I insist upon an answer "yes" or "no," without any of your insolence in attempting to cast a slur upon defendant's counsel. The question is a civil and proper one, and I want your answer yes or no.

Counsel for complainants submits to the court that the question has been fully and properly answered, with reasons for the answer given, and that the witness is entirely correct in intimating that there is higher authority than defendant's counsel, and that the only insolence practiced is that shown in the question of the counsel.

A. At the present time I decline positively to answer the question in full.

C. Q. 27. The question is again repeated.

A. Answer repeated.

187 C. Q. 28. What personal knowledge have you of any representations made by the defendants that their corset is exactly the same as yours in every respect; that they are sole and exclusive owners of patents covering this article? I ask you *in* this question so that you may fully understand it, and, understanding, properly answer it, giving simply and only your personal knowledge and not that derived from information or hearsay in any shape or manner.

A. I will not pretend to answer this question in the exact manner that I infer from its expressions is desired, but will state, if desired, what I, as a business man, could say I knew to be a fact.

C. Q. 29. I am asking you questions not as a business man, but as a witness under the solemn obligation of an oath; and I ask you if you know the meaning of the terms "personal knowledge."

A. I know the meaning of what I consider personal knowledge.

C. Q. 30. What do you consider personal knowledge?

A. Well, I might say that I had personal knowledge of the existence of God, although I never saw him. My faith in his existence is so strong that I could conscientiously say he exists.

C. Q. 31. I am not speaking of the religious faith or the existence of a Deity. I am talking of the matters involved in this litigation and concerning which you have volunteered, as one of the complainants in this cause, to testify. Do you understand the meaning of the terms "personal knowledge" as applied to them?

188 A. I do; and in answer to first part of Q. 28, which I have not answered before, I would state that I have personal knowledge that the defendants have made representations that their corset is exactly like ours in every respect. This personal knowledge was obtained through reading an affidavit made under oath that such representations had been made directly to him by the defendants, and by at least fifty letters on file in my office from our customers in which they state such representations have been made to them, and many of which letters cover claims made by these customers against us through their being deceived by these representations and the resemblance of the goods into believing that such was the case. I have knowledge that they claim to be sole and exclusive owners of patents covering this article through these same sources just specified and through a circular which I now have in my hand, to which their names are attached, and which I am sure was issued by them, as it contains a cut or engraving in imitation of our latest cut and engraving, designed by myself, and which, with other things, I believe no one else would use. I am inclined to think it a genuine issue from the defendants' office.

C. Q. 32. Have you any other means of personal knowledge except those mentioned in your answer?

A. As I am personally known to each of these defendants, they would hardly make such representations to me directly, as they know them to be false, and also know that I know they are false; and I can say that there have been made to me no such representations personally, for those reasons, I presume.

189 Defendants' counsel moves to strike out the answer on the ground that it was totally irresponsive to the question and an uncalled-for and gratuitous insult to defendants, and the question is repeated.

C. Q. 32½. Cross-question 32 repeated.

A. Not that I remember now.

C. Q. 33. Did you ever purchase a spring or a set of springs from Mr. Schilling?

A. I did; yes.

C. Q. 34. When?

A. I think it was in the summer of 1880.

C. Q. 35. I now refer you to the interviews which you say you had with me in reference to a proposed settlement of this litigation. When and where did the first interview occur?

A. I think it was about six months ago; I am not positive, and

I am not positive and cannot state where the first interview was held.

C. Q. 36. When was the second interview, and where held?

A. I remember perfectly when both interviews were held, but in which location the first or second one was held or how far apart these interviews were I cannot state. One was held in the Boston Oyster House, in the basement, corner of Clark and Madison Sts., where Judge Chumasero and myself were taking lunch. The other took place in the office of Flower, Remy & Gregory, on the occasion of my calling on Judge Chumasero with reference to some outside legal matters not pertaining to this case at all.

C. Q. 37. You don't pretend, Mr. Ball, I suppose, to give the exact words of the conversation, do you?

A. I do not, although I think it's very close, but given in my own language.

190 C. Q. 37½. Let me see if I can refresh your recollection. A part of your former answer reads as follows: "In which case he would fix up his side in this controversy in such shape that we would be sure of gaining a decision in our favor—sustaining our patent." Was not my language on that occasion in substance this? "That in case we could come to an arrangement settling this litigation that we would consent to a decree in this case in your favor confirming the validity of your patent as claimed by you; that I deemed it immaterial who, in point of fact, really held the patent so long as the defendants would have accorded to them the right of manufacture and sale, and that if such were done, in my opinion, our combination would be sufficiently strong and valid to successfully avoid any infringements."

A. There may have been language substantially like that used by you on that occasion, but I think I asked you how that could be done, and you conveyed the idea to my mind practically as I have stated.

C. Q. 38. Did I not say, Mr. Ball, in regard to the English patents, that from what little investigation I had then made in the matter I thought those English patents would defeat both of us?

A. I am inclined to think you did, and you also asked me how we proposed to get over those English patents, and I, after conferring with our attorneys, — considered them a less difficult matter to get over than you seem to think, answered "that this, with other difficulties, we employed our attorneys to surmount."

C. Q. 39. Did you ever make Mr. Ferdinand Siegel, as representing Mr. Schilling and claiming an interest in this litigation, a proposition to settle this case?

191 A. Never, of any character or description, in any shape or form.

C. Q. 40. Did you, in Mr. Zimmerman's office, during the examination of witnesses in this case, have a conversation with Mr. Siegel in which you offered, if the defense in this case was withdrawn, that you would pay all the defendants' costs and expenses incurred up to that time, and clear them, the defendants, entirely therefrom?

A. I did not have any such conversation with Mr. Siegel in Mr. Zimmerman's office or at any other place or time.

C. Q. 41. Did you have any conversation with Mr. Siegel, at any time or place, either in substance or effect as above stated?

A. I believe during the entire time of the existence of these patents that I have been in full possession of my ordinary good sense; that I should consider that I had lost it totally by making any such propositions, and I deny positively ever holding any conversation of any character, kind, or description with Mr. Ferdinand Siegel or any of the defendants touching on any matters pertaining to a settlement of this case on any basis whatever. I did ask Mr. Ferdinand Siegel, in Mr. Zimmerman's office, to buy some sewing machines of us, which interview was witnessed by several persons present in the office.

C. Q. 42. Who were present at that interview and heard it?

A. I don't think anybody heard it except Mr. Siegel and myself.

THOMAS H. BALL.

192 Subscribed and sworn to before me this 15th day of August, A. D. 1883.

[SEAL.] JNO. C. MACGREGOR,
Notary Public.

A. J. BAXTER, the next witness, being duly sworn, testified as follows:

Q. 1. What is your name, age, residence, and occupation?

A. Andrew J. Baxter; 45; Chicago, Illinois; physician.

Q. 2. How long have you practiced your profession in Chicago?

A. Twenty years.

Q. 3. Are you acquainted with Mr. Ball, and do you know of a corset known as the "Ball health-preserving corset," made with coiled-wire spring elastic sections inserted in the sides of the corset? If you do know such a corset, what is your opinion, as a physician, in reference to its healthfulness and adaptability to the ease and comfort of the wearer as compared with other corsets?

Question objected to as immaterial and irrelevant.

A. Well, I'm acquainted with Mr. Ball, and in a sanitary point of view it is the best corset I know.

Cross-examination waived.

A. J. BAXTER, M. D.

Subscribed and sworn to before me this 15th day of August, A. D. 1883.

[SEAL.] JNO. C. MACGREGOR,
Notary Public.

193 Adjourned, by consent, till 10 o'clock a. m. to-morrow, Aug. 16, 1883.

THURSDAY, *August* 16, 1883.

Met pursuant to adjournment.

Present: As before.

SIMON FLORSHEIM, the next witness, being duly sworn, testified as follows:

Q. 1. What is your name, age, residence, and occupation?

A. Simon Florsheim; age, 46; Chicago, Illinois; merchant—in the corset business.

Q. 2. Are you one of the parties complainant in this cause and the inventor and patentee of the patents therein involved?

Question objected to as leading and assuming the fact that he is the inventor, which is the question at issue in this case.

A. I am.

Q. 3. Will you give an account of the joint applications for patents which you made with Gustav Schilling, the models of which showed one or more elastic gores having non-elastic margins and springs partly continuous; and also what steps were taken by you with reference to obtaining the claims embraced in the patents involved in this controversy, and what the Commissioner of Patents required of you when you applied for these last-named patents, in view of what was shown in the models already on file in connection with your and Schilling's joint patents?

A. I made a joint application with Mr. Schilling for the patent, showing the section of a continuous wire with the non-elastic margin
194 in the back as a gore for overalls, this part of which was my invention and made by me. There was also a strap of elastic material made of coiled-wire spring on the waistband of each side of the overall. This elastic strap the wire ran single in each tube and cut off at the end of each tube and fastened to the covering material at the end. This part is added or put onto the overall by Mr. Schilling and was his invention. In 1880 I applied for a patent in my own name for my invention, which I had put into a corset. The Patent Office made reference to the model of our joint invention, and I made an affidavit, which was forwarded to the Patent Office, showing in this affidavit, under oath, that I was the inventor of that part of the model which showed the wire partly continuous and a non-elastic margin, and the Patent Office granted me a patent upon my application.

Q. 4. You say in your answer that the patent showed in the back a certain kind of gore, and that afterwards you were referred by the Commissioner to the fact that the models showed that structure. Please explain what you mean.

A. I meant to say that the model showed the gore that I described instead of the patent, as I stated in my former answer.

Q. 5. Why did not the patent show it and describe it if it was shown in the model?

A. This part of the invention was mine exclusively, and I intended some future time to claim it in an application that I in-

tended to make, and I was also told by the patent solicitor that an individual invention could not be jointly claimed.

195 Defendant's counsel objects to that part of the answer which states what was told him by the patent solicitor.

Q. 6. Have you ever been told by experienced patent solicitors anything in reference to what the practice of the Commissioner of Patents is or has been as to issuing joint patents, one or more, and a sole patent, one or more, all upon the same model, as, for instance, a harvester model would be used in the office and two or more joint inventors would take a patent upon certain features, while one of the joint inventors, being the sole inventor of certain other features, would take a sole patent for that feature?

Question objected to by defendant's counsel as leading, putting language into the mouth of the witness, and incompetent.

A. An experienced patent solicitor told me that 'tis the practice of the Commissioner of Patents, as to the issuing of joint patents, one or more, and also a patent to an individual upon the same model, and made reference to that part of the harvester model stated in the question, that the individual would be granted a patent on the feature shown as his invention in the model.

Q. 7. When you made application for the joint overall or the joint corset pattern that you took out with Mr. Schilling was the subject of the continuous spring and non-elastic margin gore talked about in Mr. Schilling's presence by him or you or his attorney as to who was the inventor of it? If so, what was said in reference to who invented it and about its being included in the joint application patent?

196 Question objected to as incompetent, and that the complainant is precluded and is estopped from opening that question by the patent itself.

A. At the time when Mr. Schilling and myself went to the patent solicitor, Mr. Lotz, with the model for the overall, as well as the corset, Mr. Schilling, as well as myself, told the patent solicitor, Mr. Lotz, that I was the inventor of the continuous spring and non-elastic margin, as shown in both models. Mr. Lotz explained to us then that an individual invention could not be jointly claimed in the patent, and it was then my intention to make a later claim on this my invention.

Q. 8. Did Mr. Schilling inform you at any later date that when these joint applications were made that he had applied for a patent himself for a corset; if so, what kind of a corset? And did he in that application for a patent claim to be the inventor of any of the inventions claimed in your patents which constitute the subject-matter of this litigation? And state whether he afterwards did make an application for a patent in which he did make claim to the inventions patented by you in the patents involved in this suit; if so, state whether that was before you had spent large sums of money to extensively introduce the inventions, and state what was done by

you and by Schilling in reference to his application for a patent for the inventions patented by you.

Objected to by the defendant's counsel on the ground, first, that it is leading, especially as the witness is one of the complainants in this case; also that it is immaterial and irrelevant; and, further, that if any of the applications referred to in the question

197 were ever made the applications themselves are the best evidence of the facts contained therein, and oral evidence of their contents is inadmissible.

A. In November, 1879, Mr. Schilling informed me that he had applied for a patent for a section to be laced in the back of a corset. I told him I did not care what he had applied for, and asked him whether he had applied for my invention—the continuous wire and non-elastic margin—and he replied that he had not; would not give a cent for it anyhow. In 1881, I think it was in the winter, after we had established a large trade, had spent a very large sum of money in advertising our corsets, and had been in business nearly a year, Mr. Schilling applied for a patent for a corset, claiming the same features that had been granted to me in my patent. The Patent Office declared an interference. A large amount of testimony was taken on both sides, and the Patent Office dissolved the interference in my favor.

Q. 9. When was the first that you ever heard that Mr. Schilling laid claim to being the inventor of the inventions claimed by you in these patents involved in this suit that you can remember of?

A. At the time when I received notice from the Patent Office declaring an interference.

Q. 10. Please look at this letter now shown you, marked "Complainants' Exhibit Schilling and Florsheim Interference Letter No. 1," and state whether that is the notice above referred to by you, or what it is, if you know.

Question objected to as incompetent.

A. This is the notice that I had reference to in my former answer.

198 Q. 11. Observe that in said notice of interference sent you by the Commissioner of Patents there is also a notice that you must file a preliminary statement, under rule 105, before the 19th day of January, 1882. Did you file such a statement; if so, will you examine this paper now shown you and state what it is?

Question objected to as incompetent.

A. I filed a preliminary statement, and the one handed me is a copy of the same.

The paper just alluded to is here offered in evidence and marked "Complainants' Exhibit Florsheim Preliminary Statement, Jno. C. MacGregor, notary public."

Also a copy of Mr. Schilling's preliminary statement is offered in evidence, and the same is marked "Complainants' Exhibit Schilling Preliminary Statement, Jno. C. MacGregor, notary public."

By Mr. ZIMMERMAN:

The copy of Schilling's preliminary statement is objected to for the reason that it is not identified as such.

Q. 12. Please look at this paper, marked "Complainants' Exhibit Schilling Preliminary Statement," and state whether you caused a copy of Schilling's preliminary statement to be ordered from the Patent Office, and whether this is the paper furnished you as such copy.

A. I ordered such a copy to be furnished, and this, the paper handed me, is the one that was furnished, to the best of my recollection.

199 Notice is here given to the defendant and his solicitor to produce the original preliminary statement, to be used as evidence in this cause, or a copy of the same, or consent that this copy now introduced may be used, or we shall ask the court, in the absence of such original statement, to admit the copy here offered.

Q. 13. Please look at this paper and state what it is.

A. It is a notice from the Patent Office informing me that the interference has been dissolved.

By Mr. ZIMMERMAN:

Defendant's counsel objects to the letter last offered as being incompetent in this matter.

Q. 14. Did you hear any portion of Gustav Schilling's deposition pertaining to the fixing of his date of invention from seeing an English patent in the public library in Chicago, which you called his attention to, and went with him to the public library? If so, what have you done in reference to ascertaining when you first learned of said English patents? And state when you first learned of them, according to your best information and belief, and state what your information is about it.

A. I heard the deposition of Mr. Schilling, and he stated, to the best of my knowledge, that he got his information of how to make the continuous wire and non-elastic margin by going with me to the public library, and that I read to him the English patent referred to. The first information that I have had of the existence of this English patent is after the 14th of April, 1879. I have a memorandum now in my possession, which I found among my papers,
200 which was given me by Mr. Lotz on a notice from the Patent Office dated April the 14th, 1879, at Washington. I have also requested Mr. Lotz to enquire or make search when any such notice could have reached here. Mr. Lotz has done so, and tells me that it is his opinion, from information, that notice referring to this English patent did not reach here until some time in the latter end of April, 1879.

Q. 15. Who is this Mr. Lotz referred to, and did you get any information in reference to any patents from any other source than through him; if so, what source?

A. Mr. Lotz is the party that attended to the obtaining of the patents of Schilling and myself, and whatever information I received regarding any English patents or any other patents I received through him. I have received no information of any kind regarding this matter from anybody outside of him.

Q. 16. Is this memorandum which you have found in your handwriting or any one else's handwriting, so that you can identify it, or how do you know it from Lotz'?

A. The memorandum which I have referred to and which refers to the English patent, 3451, of 1866, is in the handwriting of Mr. Lotz.

Further taking of testimony here adjourned till 2 o'clock p. m., same day and place.

TWO O'CLOCK P. M.

Met pursuant to adjournment.

Present: As before.

Cross-examination by WM. ZIMMERMAN:

C. Q. 1. Mr. Florsheim, do you believe there is a God?

A. I do; most emphatically, sir.

201 C. Q. 2. Do you believe in the sanctity of an oath?

A. I do.

C. Q. 3. What time was it—about what date—that you made the first corset invented by you containing the elastic sections with continuous springs and plain margin?

A. I never made a corset.

Question waived.

C. Q. 4. What time was it—about what date—that you made the first corset claimed to be invented by you, containing the elastic sections with continuous springs and plain margins?

A. I never made a corset. I made the section with the continuous spring and non-elastic margin in February, 1879, which were sewed into a corset.

C. Q. 5. What day in February did you make your first elastic section which you have just spoken of?

A. I cannot give the day.

C. Q. 6. Is that as near as you can give it?

A. It is.

C. Q. 7. Cannot tell whether it was in the fore part, middle, or latter part of the month, can you?

A. It was either in the middle or latter part of the month of February, 1879.

C. Q. 8. Did you not add to the above answer just now given the words "the latter part of the month?"

A. I stated that it was either in the middle or latter part of the month, and if I repeated "the latter part of the month" it was because that I was under the impression that the notary did not understand what I said.

C. Q. 9. Which of those two alternatives do you think would

be nearest the exact truth, the middle of the latter part of the month?

202 A. The time that I have stated is as near as I can give it.

C. Q. 10. That does not answer my question.

Question repeated.

A. I have stated before all that I can say in answer to that question.

C. Q. 11. You have no opinion about it at all, then—not the remotest—as to which of those parts of the month would nearest approximate the correct date, have you?

Question objected to as being wholly improper, as calling for "remote opinions," what you think, instead of asking for facts, and because the witness has already stated that he has given the date as near as he can at present.

A. I have said all I can say in regard to that question; have given the time as near as I now remember.

C. Q. 12. Is there no fact or circumstance in your memory connected with that event so that you could fix the date as to whether it was the middle or latter part of the month?

A. There is not.

C. Q. 13. Then, how do you know that it was the month of February?

A. I know that it is the month of February because it was in this month that I made my first invention of a continuous wire and non-elastic margin, and it was during that same month that I made those sections for a corset.

C. Q. 14. That does not answer the question. How do you know, by what fact of circumstance, that it was in the month of February?

203 A. Because we applied for a patent before the solicitor, Mr. Lotz—for a patent on a corset during that month.

C. Q. 15. By what fact or circumstance do you know that it was in the month of February that you went to Mr. Lotz to apply for a patent on a corset?

A. It was on February 27th that we made oath for the invention.

C. Q. 16. Did you make the first elastic section having plain margin and continuous spiral spring with your own hands?

A. I did, in so far as to mark out on a piece of cloth the pattern for stitching of the same, after which I crimped the section and run in the continuous wire.

C. Q. 17. Who did the stitching?

A. Mrs. Maggie Hochstaedter.

C. Q. 18. How did you do the crimping of the covering for the springs? Please give us the details of that operation, as you then did it, minutely—in detail.

A. I took solid wire sticks and run them through the tubes the entire length of the section. I then crimped the section on the solid wire sticks together, about half the width of the section when

not crimped; after which I would withdraw one of the solid wire sticks after another and run in the coil spring and fasten the ends of the wire to the covering material. Then the section would be finished.

C. Q. 19. How did you do the crimping? Was it by hand or mechanism, and if mechanism, what was it? How was it constructed?

A. It is done by hand.

C. Q. 20. Please tell us minutely how this hand work was done.

204 A. By pushing the cloth together on the solid wire sticks.

C. Q. 21. Was that all that was necessary to do?

A. That was all that was necessary to do, so far as the crimping is concerned.

C. Q. 22. How much of a section could you crimp together by hand—all the tubes of a section or a part of it at a time?

A. Either.

C. Q. 23. But it has been stated that it required machinery exerting considerable power to crimp the cloth for an elastic section. Then how could you do it by hand and hold it in its place after you had crimped it?

A. It requires machinery to do this work so as to make the section cheap; but for to crimp one section and take plenty of time and have somebody to hold the crimping in place, when done by hand, it is easily done that way.

C. Q. 24. Then, after all, it seems you had somebody to help you do the crimping, did you not?

A. Not to do the crimping; and I could have done it alone if I had not had somebody to hold it in place after I had crimped it. I could have used a cord or thread to wind around the section to hold it in its place when I had crimped it.

C. Q. 25. Mr. Florsheim, from your statements it appears that the greater part, if not all, of your business life has been of a commercial character. Are you a close watcher of the details of all your business transactions in every respect?

A. As fully as I am able to watch them.

C. Q. 26. When you went into the arrangement or agree-

205 ment with Mr. Schilling did you watch closely the transactions of your attorney with the Patent Office, and were you informed by your attorney of the actions of the Patent Office in regard to your applications as they transpired?

A. The attorney would inform me whenever I would enquire.

C. Q. 27. How often did you enquire?

A. That I cannot state.

C. Q. 28. Did you let matters connected with the applications pending for Mr. Schilling's inventions take their own course, and allow the attorney to inform you of what transpired in the Patent Office only when he saw fit to do so?

A. I do not know what you have reference to when you speak of Schilling's invention. My knowledge of patent matters was at that time very limited, and would only make inquiry occasionally.

C. Q. 29. The inventions now referred to more particularly were the application for gloves and the elastic gore for gaiters. I ask you with reference to these particularly, whether you knew what transpired at the Patent Office through your attorney or otherwise?

A. Mr. Schilling went with me to Mr. Lotz to make his applications—I really mean to say that I went with him—he took me there. I paid for the patents. I would go there occasionally to enquire whether the patent had been allowed.

C. Q. 30. Did Mr. Lotz inform you of the correspondence from the Patent Office of the contents of the letters in regard to these applications?

A. I presume he did.

206 C. Q. 31. Have you any recollection what he told you at any of these times in regard to the application for gloves?

A. I have not.

C. Q. 32. Do you recollect the amount of money you paid Mr. Lotz for obtaining the patent for the gloves?

A. I know that I paid for the patent; the exact amount I do not now remember.

C. Q. 33. About how much did you pay for that patent for the gloves?

A. I think that it was $40.00, and afterwards $20.00; then I paid a certain amount, the exact sum I cannot now state, for appealing the case; that's as near as I recollect.

C. Q. 34. Did Mr. Lotz appeal that case without consulting you?

A. He did not.

C. Q. 35. Then evidently he must have informed you of the difficulties that occurred from time to time in his endeavors to obtain the patent for you; is not that a fact?

A. He certainly told me that in order to get the patent he would have to appeal; but the details, why and wherefore, I do not now remember.

C. Q. 36. But from the facts and statements made to you by Mr. Lotz you thought that it would be worth while to act under his advice and pay the necessary expenses for making the appeal, did you not?

A. I know that I made the appeal—paid for it—but the details, I've once before stated, I do not now remember.

C. Q. 37. But you wanted to know, at the time, what the references shown by the Patent Office were, did you not?

207 A. I have once before stated that I do not remember the details, and I would now again say so.

C. Q. 38. That does not answer the question. I did not ask you for the details or whether you remembered them, but I asked you simply whether you made any inquiry of Mr. Lotz or wanted to know the reason why your application was rejected.

A. I know, through what Mr. Lotz said, that the application of Mr. Schilling was rejected; the reasons and particulars why I do not remember.

C. Q. 39. You was, however, satisfied with the details laid before

you by Mr. Lotz as he received them from the Patent Office before you told him to make the appeal to obtain the patent, were you not?

A. I must have been or else I would not have invested the amount necessary for the appeal.

C. Q. 40. Did you make the application for the patent for the gloves and the goring for the shoes at the same time?

A. Mr. Schilling made the application for the gloves first. Shortly afterwards he made application for the goring in shoes.

C. Q. 41. During the pendency of this application did Mr. Lotz inform you, as matters progressed, what transpired at the Patent Office in regard to the application made for the elastic goring for shoes?

A. No doubt he did whenever I enquired.

C. Q. 42. Then you say only when you enquired; otherwise he did not inform you; is that the way you mean to be understood from your answer?

A. I did not say that he did only then. I said as near as I remember.

208 C. Q. 43. Was the application for the shoe goring allowed upon its application, or were difficulties encountered which had to be overcome before the application was granted?

A. I only know at present that the application was allowed and the patent granted. What the difficulty was, if any, I do not now remember.

C. Q. 44. Did you make any inquiry of Mr. Lotz during the pendency of this application as to how matters progressed at the Patent Office?

A. No doubt I did.

C. Q. 45. What information did Mr. Lotz give you previous to the time that the patent was allowed?

A. That I cannot now remember.

C. Q. 46. Can you tell whether the delay in obtaining the patent, from the date of its filing to the date of its allowance, was long or short?

A. Short time only, I think. The patent was allowed in March and issued in April.

C. Q. 47. How many times was this application rejected during that time?

A. I cannot state without referring to Mr. Lotz.

C. Q. 48. Do you think more than once?

Thoughts and opinions objected to, at least after three questions have been asked in reference to each.

A. I told you before that I cannot tell unless I refer to Mr. Lotz.

C. Q. 49. Do you remember the fact that this application was rejected?

A. I believe it was.

C. Q. 50. Then Mr. Lotz must have informed you of the fact, did he not?

209 A. No doubt he did, but how many times it is rejected I cannot say.

C. Q. 51. Naturally you enquired the reason why it was rejected, did you not?

A. It may be your inference, but I did not say so.

C. Q. 52. Is it not reasonable to suppose that as a business man of long experience you would make inquiry as to why the application was refused? What is your opinion about it?

Counsel for complainants would suggest that suppositions and opinions are immaterial, and that he has reached his limit of three immaterial questions on this point and therefore calls "time."

A. I would here state that Mr. Lotz had an associate in Washington, through whom all of his applications went, and no doubt all references went to him; that I would get information only after it had reached Mr. Lotz, and I would enquire for it.

C. Q. 53. Well, that is the point I wish to know; not how you got the information, but that you got information from Mr. Lotz of the action of the Commissioner of Patents in regard to this application while it was pending. You did, then, get such information, did you not?

A. I got no information from Mr. Lotz during the pendency of this application, to the best of my recollection. I did get information after the 14th of April, 1879, but to which application this reference was made I am not able to state.

Further taking of testimony here adjourned till 10 o'clock a. m. to-morrow, August 17th, 1883, at same place.

210 FRIDAY, *August* 17, 1883.

Met pursuant to adjournment.

Present: As before.

Cross-examination of witness, SIMON FLORSHEIM, resumed by Mr. ZIMMERMAN:

C. Q. 54. How soon after you invented the elastic goring for shoes containing plain margin and continuous spring did you invent the overalls?

A. The overall was the first that I invented.

C. Q. 55. Then how long before you invented the elastic gore for gaiters did you make this invention for overalls?

A. The gore for the overalls, the continuous spring and non-elastic margin, I invented early in February, 1879, which embraced all the features showing the continuous wire and non-elastic margin, was put into an overall, a corset, or gore for gaiters. The elastic gore for gaiters, the continuous spring and non-elastic margin, I made in March, 1879.

C. Q. 56. About what date in the early part of February did you invent this elastic gore for overalls, as you have described?

A. 'Twas prior to the 8th of February, 1879.

C. Q. 57. Can you give us the exact date?

A. I cannot.

C. Q. 58. How do you know it was prior to the 8th day of February, 1879?

A. My father-in-law died on the 8th of February, 1879, and I know it was a few days prior to his death that I made the invention.

211 C. Q. 59. Did you embody your invention immediately in a practical form by making the overalls at the time spoken of?

A. I bought the overalls, cut out a gore in the rear of the overall, on the waistband, or down the waistband as far as I required, and had the gore of coiled-wire spring stitched into the overalls in the place that I cut out in the overalls.

C. Q. 60. Did you make the elastic goring yourself?

A. The stitching of the goring, as I had marked out on the same, was done by Mrs. Maggie Hochstaedter. I inserted the solid wire sticks into the tubes as stitched into the goring, crimped the same on these sticks, then withdrew one after another of the solid wire sticks and inserted the wire spring into the tubes, fastened the ends of the coiled-wire spring by stitches to the covering material of the gore. I basted the gore into the overall on the non-elastic margin and Mrs. Hochstaedter stitched the goring into the overalls.

C. Q. 61. What was then done with those overalls?

A. I took the overalls to the store of Florsheim Bros. and showed them—either the same day or the next day—to Mr. Schilling and others in the store. Mr. Schilling took these overalls and added on each side of the waistband an elastic strap with coiled-wire springs, each spring in each tube being cut off and stitched at each tube to the covering material. A short time afterwards Mr. Schilling and myself went to the patent solicitor, Mr. Lotz, and we made application for a patent on the same. Mr. Schilling, at the time when I showed it to him, expressed himself that this improvement—a continuous wire spring arranged in groups and non-elastic margin—was an excellent idea of mine.

212 C. Q. 62. What was your object in taking the overalls to the store after you had finished them?

A. To show them to Mr. Schilling and others.

C. Q. 63. What object had you in showing them?

A. To show him and others the improvement that I had made.

C. Q. 64. You considered, then, that you had made an invention, did you not?

A. I did.

C. Q. 65. Did you explain to Mr. Schilling how you had made the elastic section for the overalls?

A. I did.

C. Q. 66. Then why was the elastic straps put on the waistband of the overalls made, as you say, with discontinuous wires and without the non-elastic margin?

A. That part was his invention. The continuous wire, non-elastic margin in groups (of coiled-wire springs), was my invention, and which was shown in the gore of the overalls.

C. Q. 67. Why did you not ask Mr. Schilling to make the springs

continuous and leave a plain margin on the end of the straps, as you had made for the goring of the overalls?

A. That was my invention and not his, and I don't know why I didn't ask him.

C. Q. 68. Don't remember anything about the transaction that occurred at that time, why you gave him the overalls or what he was to do with them?

A. He stated at the time that he would add an improvement to the overall.

C. Q. 69. Did he tell you what the nature of the improvement was that he proposed to add?

213 A. That I do not remember.

C. Q. 70. Then you accepted Mr. Schilling's added improvement to the overalls as a part of the invention; is that correct?

A. It is.

C. Q. 71. And you, with him, made a joint application for a patent for such improved overalls, did you?

A. We did.

C. Q. 72. And a joint patent was granted?

A. It was.

C. Q. 73. Then, since you was aware of the importance of this special feature of your invention, namely, the elastic gore provided with continuous springs, arranged in groups, and non-elastic margins, why did you not specially mention such features in your specification or make any claims or attempted to make any claims upon this very important feature of your invention?

A. I was told by the patent solicitor, Mr. Lotz, that an individual invention could not be jointly claimed. This being the only invention to make this elastic material useful and practical, I intended at that time to claim the continuous wire in groups and non-elastic margin in a later application. I had also expended the money for obtaining these patents, and I did not think that I ought to furnish both money and brains.

C. Q. 74. Then why did you join Mr. Schilling in this application?

A. Simply because I did; that is all the reason I can give. I did not at that time know much of anything about patent matters.

Further cross-examined by JNO. C. CHUMASERO:

214 C. Q. 75. Was not the application made by you and Schilling for this joint patent and the facts stated therein verified by your affidavit?

A. The affidavit was for an application for a patent for a completed article, to which I contributed, and Mr. Schilling also.

C. Q. 76. Question repeated.

A. This is all I can answer as I understand the question.

C. Q. 77. We are not asking you about any completed article or article not completed. You have stated that a joint patent was issued to you and Mr. Schilling. What I now ask you is whether the application and the facts therein stated upon which the joint

patent was issued, no matter what it was for, was verified by your affidavit. Please answer the question—yes or no.

A. I am aware that we made an affidavit claiming a completed article as our invention.

C. Q. 78. Who do you mean by "we?"

A. Mr. Schilling and myself.

C. Q. 79. What were the numbers of the patents issued to you and Mr. Schilling for your joint invention? Was one of them (and which number) for an improvement in corsets, and the other (and what number) for an improvement in overalls?

A. The number of the corset patent is 222,082; the number of the overall patent is 224,559.

C. Q. 80. Mr. Florsheim, when, where, and under what circumstances did you first become acquainted with Mr. Gustav Schilling?

A. I think it was either in 1877 or '78 that I made his acquaintance at our store, in Chicago.

215 C. Q. 81. Well, under what circumstances?

A. He came to me with some glove samples, I think, offering them for sale; gentlemen's gloves, and, I think, also ladies' fur gloves.

C. Q. 82. Was there anything peculiar about the gloves—did they possess any distinctive feature about which you conversed? In other words, was there anything new in their construction or manufacture?

A. Not at that time. They were ordinary gloves.

C. Q. 83. Was there any future time after that when gloves with any improvement in manufacture were presented by Schilling and talked about by you?

A. In the month of January, 1879, Mr. Schilling came to our store and exhibited to me a glove or a pair of gloves which had a strap of coiled-wire springs attached to the wrist of the same.

C. Q. 84. These springs, Mr. Florsheim, were for the purpose of contracting the gloves at the wrist, were they not?

A. They were.

C. Q. 85. Did you, at that time, make or enter into any business arrangements with Mr. Schilling in connection with those gloves?

A. Mr. Schilling asked me whether I would not be willing to pay the fees for obtaining a patent on this glove, and he would assign a half interest in the patent to me. I questioned him as to the construction of this elastic strip, how it was made, and what it was made of. He explained it to me; also explained to me how it was made. I asked him what the cost for obtaining a patent would be. He told me, as near as I can recollect, the amount. I asked him

216 where to go for such purpose, and he took me to Mr. Lotz. He made an application for a patent, assigned the half interest to me, and I paid the fees demanded by Mr. Lotz.

C. Q. 86. Was the patent obtained?

A. It was.

C. Q. 87. What number is that patent?

A. No. 218,322.

C. Q. 88. And when issued?

A. August 5th, 1879, and being "Defendant's Exhibit No. 1."

C. Q. 89. Be kind enough to state, Mr. Florsheim, what explanations Mr. Schilling gave you at that interview; how the springs were made, and all about it.

A. He told me that he made them in the following manner: He would take a piece of cloth or leather, stick it into tubes, run into these tubes solid wire sticks, crimp the same on these sticks, then run a coiled-wire spring into each tube. After, he pulled out the sticks and cut off the wire at the end of each tube, making it a single wire in each tube, and stitched the same to the end of the covering material in each tube.

C. Q. 90. Those springs, Mr. Florsheim, were they single or continued?

A. I call them single.

C. Q. 91. Well, what next did you know of Mr. Schilling—after this what was your next operation? Did you manufacture gloves under this patent?

A. I never manufactured gloves with Mr. Schilling.

C. Q. 92. Were they manufactured by Schilling under this patent, to your knowledge?

A. Schilling made gloves with these springs.

217 C. Q. 93. Were these springs contained in a gore, or, rather, did the springs and the material in which they were confined form an elastic gore?

A. Simply a strap.

C. Q. 94. As shown in figure 3 of the patent?

A. I think it is either 1 or 3.

C. Q. 95. Are not the springs shown in both figures 1 and 3?

A. I think they are.

Further taking of testimony here adjourned till 2 o'clock p. m., same day and place.

TWO O'CLOCK P. M.

Met pursuant to adjournment.

Present as before, and cross-examination of witness, SIMON FLORSHEIM, resumed by JNO. C. CHUMASERO.

C. Q. 96. What was your next interview with Mr. Schilling?

A. The next interview with Mr. Schilling was at the time, as near as I recollect, when he spoke of making goring for shoes or gaiters.

C. Q. 97. About what time was that?

A. It was only a short time after he had made application for the gloves.

C. Q. 98. Was it before or after the glove patent was issued?

A. It was before the glove patent was issued.

C. Q. 99. Can you give about the time of the year when this interview about the gore for shoes was had?

A. It was in the winter of 1879.

C. Q. 100. Did you get a patent for that?

A. For what?

218 C. Q. 101. The shoes—improvement in shoes.

A. He did. That was his patent, the half interest assigned to me.

C. Q. 102. Well, what next connection did you have with Schiling in regard to patents after that?

A. The next was a joint patent—an improvement in overalls.

Defendant's counsel hands to witness "Defendant's Exhibit No. 6," being the patent for improvement in pantaloon garments, No. 224,559, dated February 17th, 1880, and asked the witness—

C. Q. 103. Is that the patent you refer to in your last answer?

A. It is.

C. Q. 104. That was a joint patent to you and Schilling, was it?

A. It was.

C. Q. 105. Was the application for that patent signed and sworn to by yourself and Mr. Schilling?

A. It was.

C. Q. 106. What next in order occurred as to the issue of the patent to yourself or yourself and Mr. Schilling jointly?

A. The next application was for an improvement for the corset.

Defendant's counsel hands witness "Defendant's Exhibit No. 3," being the patent for the improvement in corsets, numbered 222,082, and dated November 25th, 1879, and asks—

C. Q. 107. Is that the patent to which you refer in your last answer?

219 A. It is.

C. Q. 108. Did the corsets described in that patent contain an elastic gore with continuous coiled-wire springs?

A. It contained a gore.

C. Q. 109. What kind of springs did it contain?

A. I couldn't state. I know that it had a non-elastic margin, and may have had the springs partly continuous, as I stated in my former testimony that I've since found out that there was only single springs.

C. Q. 110. What did you mean in your former testimony by "partly continuous?"

A. I meant that the model contained the spring partly continuous. When I speak of this matter I refer to the model only.

C. Q. 111. What do you mean by the model?

A. I mean the corset that was forwarded to the Patent Office.

C. Q. 112. By whom was that corset forwarded to the Patent Office?

A. By Mr. Lotz.

C. Q. 113. Did you see it before it was sent down?

A. I did.

C. Q. 114. Do you remember now from seeing it whether it did or did not contain continuous springs?

A. Partially so.

C. Q. 115. I don't understand you. What do you mean—that they were partially continuous?

A. That's what I mean.

C. Q. 116. Well, that's the way you testified before, wasn't it? I want your recollection.

A. I testified before that they were partially continuous, to the best of my recollection.

220 C. Q. 117. And now you testify that they were not, do you not—that they were single?

A. I do not.

C. Q. 118. What, then, do you mean in your answer to question 111, that you stated in your former testimony that the springs were partly continuous, but that you have since found out they were only single springs?

A. They were partly continuous. There were single springs at the shoulder-straps. The gore in the back of the corset had the continuous spring. The gore on the side had a single spring and non-elastic margin; also the gore in the back had the non-elastic margin.

C. Q. 119. What springs had the gore in the back—continuous or single?

A. Continuous, to a certain extent.

C. Q. 120. What do you mean by being "continuous, to a certain extent?"

A. By turning around the coiled-wire spring from one tube to another or more. That I understand to be continuous.

C. Q. 121. You state, in answer to cross-question 111, that you stated in your former testimony that the springs were partly continuous; that you have since found out that they were only single springs. In answer to C. Q. 120 you say they were partly continuous. How do you reconcile the two answers?

A. I have reference to the section and the back of the corset. My former testimony—I stated that, as near as I could recollect, the spring ran either the entire length of the section or most of the entire length, to the best of my recollection.

221 C. Q. 122. If, as you say in your answer to cross-question 120, *that* the shoulder-straps contain single springs; that the gore on the side had the single spring, and that the gore in the back of the corset had continuous springs, and if it be true, as stated in your answer to cross-question 111, that you have since found out that there was only single springs, will you be kind enough to tell us how you reconcile the two answers with each other?

A. I meant to say that I stated in my former answer or in my former testimony—interference testimony—that the gore in the back of the corset had continuous spring; that the side gore had the continuous spring and non-elastic margin the same as the back gore—in groups. In the shoulder-strap the spring was cut off in each tube and did not have a non-elastic margin. I did not mean to say that it had a single spring, to the best of my recollection.

C. Q. 123. You say that the shoulder-straps had single springs; that the gore in the back had continuous springs, and that the gore in the side had a single spring, but that you have since found out they were only single springs. When did you make that discovery?

A. I didn't state what you have just quoted; not substantially so. I stated——

C. Q. 124. Counsel for defendant asks the examiner to read to the witness his answer to cross-questions 111 and 120, which the examiner does, and after being read counsel asks the witness whether he has anything further to say on that question.

A. I meant to say that the side gore had the single spring, as I had been informed. The back gore had the continuous spring, and both side gore and back gore had the margin and were in
222 groups. I stated in my former testimony—the interference suit—that the side gore was continuous, but I've since found out that I was mistaken. It has the single spring and the non-elastic margin.

C. Q. 125. When and how did you discover that mistake?

A. By the deposition of Mr. Smith.

C. Q. 126. You mean the Washington expert who testified in this case? Was that discovery made by you from his deposition taken on behalf of the defendant or from his testimony when he was called by you as a witness on your part?

A. From his deposition.

C. Q. 127. Do you mean the Washington deposition?

A. I do.

C. Q. 128. Were there any other joint patents issued to you and Mr. Schilling than those you have mentioned?

A. There was not.

C. Q. 129. Mr. Florsheim, when did you first conceive the idea of springs being made continuous, and from what source?

A. The early part of February, 1879; from the mere source of necessity, having found that the elastic gores made by Mr. Schilling, in which the wire ran singly in each tube to the end of the covering material and fastened each wire in each tube, fastened to the end of the tube. Mr. Schilling made for me a set of gores, as I have described, to be put into a pair of shoes for my own use, and to test the same practically I had these gores put into a pair of shoes, and was informed by the shoemaker that in stitching these sections into shoes the machine needle had cut the wire in several places. I looked at the shoes and found the facts to be as
223 I have stated, that the wire was cut in different places in the gore, and otherwise sewing the ends of the coiled-wire springs into the upper of the gaiter made a very bungling and bad looking job. I took the shoes with these gorings, either the same day or the next day, and exhibited them to Mr. Schilling and others in the store, and asked Mr. Schilling whether he knew of any other way to make these sections so they would be practicable. He stated that he did not; that this way of making these gores had worked all right in the old country, and he didn't see why it shouldn't work here. This was for the first time that I was made aware of the fact that the making of this elastic material was old; that I had spent my money for nothing. I commenced to study how to improve this material so as to make it in a way that it could be sewed into anything without interfering with the coiled-wire spring, and

also to make it in a cheaper manner, and after considerable study and experimenting I was enabled to make it with a continuous wire in groups, with a non-elastic margin.

C. Q. 130. What was the first machinery used by you in making continuous coiled-wire springs?

A. I did not use any machinery for coiling the wire myself, but had it coiled by Mr. J. P. Marsh, a machinist in this city.

C. Q. 131. How long were the first pieces of coiled wire used by you in making the first continuous springs when you first commenced?

A. At first I was not able to get the wire coiled to any considerable length; the exact length I do not remember.

224 C. Q. 132. Did you use any tools or instruments in inserting coiled wire into the tubes? If so, what did you use?

A. I used solid sticks of wire only for the purpose of crimping the material on the same. I would then, after having crimped the material, withdraw one of the solid wire sticks; run the coiled wire into the tube where I had withdrawn the solid wire, *in* going that way from tube to tube and from group to group to the end of the same.

C. Q. 133. Was that the first you had ever heard or known or thought of continuous wire springs?

A. Do you mean when I invented it?

C. Q. 134. I mean to refer to what you have stated in your last answer.

A. It is for the first time.

C. Q. 135. Did you ever go with Mr. Schilling to the public library in the city of Chicago?

A. Not to my recollection did I ever go with him to the public library.

C. Q. 136. Will you swear upon your oath that you never did go with Mr. Schilling to the public library in Chicago and there read or examine an English patent above spoken of?

A. I never went with Mr. Schilling, to my recollection, to the public library to read an English patent.

C. Q. 137. I ask you, not according to your recollection, but will you positively swear that you did not?

A. I will swear, to the best of my knowledge and belief, that I did not.

C. Q. 138. Was you present at and did you hear the testimony of Mr. Schilling taken in this case, in which he swore that in the month — February, '79, you and he went to the public library

225 in Chicago, and while there he read to you the English patent in question, showing the use of continuous rubber springs in elastic gores, and did Schilling remark to you, after reading it to you, that that was the very thing you wanted, and was worth a thousand dollars to us?

A. I was present at the time that Schilling swore that I went with him to the public library in February, and I was also present when Schilling swore that I went with him in April, neither of which is

true, and he never read any patent to me at the public library; neither did I ever read any to him at the public library.

C. Q. 139. I did not ask you whether Mr. Schilling's testimony was true or not. I simply ask you if you were present when Mr. Schilling testified to the facts stated in my question, which will now be re-read to you, and to which you will please give me a direct answer.

Counsel for complainants objects to the question because the record is the best evidence as to what question he did ask or didn't ask, and will show for itself, and also because the question has been directly answered once by the witness saying that he was present when Schilling swore to a part of the matters enquired of in the question; and, further, because the other part of the question assumes what, according to recollection of the counsel, was not true.

Defendant's counsel insists that when a witness in his attempted answer to a plain and simple question voluntarily charges the witness to whose testimony reference is had with swearing falsely and evidently attempts to evade the question counsel
226 has a right to a direct answer to his question and will insist upon it so long as he and the witness have life and strength to confront each other; and he repeats the question, which he desires the examiner slowly and carefully to read to him.

Cross-question 140 here read.

A. I was present at the hearing when Schilling gave his testimony, but I do not remember the facts as stated in the question, as regards to his reading any patent to me.

C. Q. 140. Question repeated, with the following correction, striking out the words "he read to you the English patent in question" and in inserting in lieu thereof the words [you read to him the English patent in question].

A. I was present.

C. Q. 141. If such statement had been true, striking, as it does, at the very foundation of your claim to this invention, could you possibly or reasonably have forgotten?

Counsel for complainants objects to the counsel's "striking the foundation."

Counsel for defendant accords to the counsel for complainant the privilege of striking when and where he has a mind to.

A. I cannot answer that question in any other way than that my memory is good and I stated the facts in my former answer.

C. Q. 142. Then you state that you have no recollection of it, as you say in your former answer, do you?

A. I mean to say that I have not been at the public library with Mr. Schilling, and that I have not read any patents to him at the public library.

227 C. Q. 143. Do you answer to that positively, on your oath?

A. I do.

C. Q. 144. Why didn't you do it before? Why did you say, when

I asked you this question before, that you had no recollection of the fact?

A. I understood you to ask me whether I recollected going to the public library with Mr. Schilling.

C. Q. 145. Why did you not make a claim for the inventions which you have successively made or claimed in the overalls, corsets, and shoe gorings, consisting of the non-elastic margin and continuous springs?

Question objected to, first, because it is ambiguous in not stating where he is asked why he did not make a claim; second, if the intention is to ask why he did not make a claim in the overall application for patent, or the application for corset, made jointly with Schilling, for an elastic section made with continuous springs and non-elastic margin, the witness has already explained why, both in his direct and cross examination.

A. The shoe-goring application was made by Mr. Schilling and was his invention. The reason why we did not claim a non-elastic margin, a continuous spring in groups, is because it was my invention and I intended to claim it in a later application. What we intended to claim in our joint patents was an entirety, as described in our patents.

SIMON FLORSHEIM.

228 Subscribed and sworn to before me this 18th day of August, A. D. 1883.

[SEAL.] JNO. C. MACGREGOR,
Notary Public.

Further taking of testimony here adjourned till 10 o'clock a. m., Saturday, Aug. 18, 1883.

SATURDAY, *August* 18, 1883.

Met pursuant to adjournment.

Present: As before.

Counsel for complainant here states that he rests his case.

STATE OF ILLINOIS, }
County of Cook, } *ss:*

I, Jno. C. MacGregor, a notary public in and for the county of Cook, in the State aforesaid, do hereby certify that the foregoing depositions of R. D. O. Smith, Charles A. Whitney, George W. Ludlow, Mary M. Beavis, Hattie P. Bissett, Thomas H. Ball, Isabella S. Hotchkiss, Andrew J. Baxter, and Simon Florsheim were taken before me by consent of counsel and pursuant to notice hereto annexed, made a part of this record; that the parties to the said cause were present at the taking of the same—complainants by their counsel, L. L. Coburn, Esq., of Coburn & Thacher, and defendant by his counsel, Hon. Jno. C. Chumasero and Wm. Zimmerman, Esq.—as therein appears; that before deposing the said R. D. O. Smith, Charles A. Whitney, Geo. W. Ludlow, Mary M. Beavis, Hattie P.

Bissett, Thomas H. Ball, Isabella S. Hotchkiss, Andrew J. Bax-
229 ter, and Simon Florsheim were by me first duly sworn to tell the truth, the whole truth, and nothing but the truth in the cause aforesaid; that their depositions were reduced to writing from their respective statements, and the same duly subscribed and sworn to, as therein appears.

And I do further certify that I am neither attorney nor of counsel for any of the parties in said depositions or caption named, and am in nowise interested in the result of said cause.

In testimony whereof I have hereunto set my hand and affixed my notarial seal this 18th day of August, A. D. 1883.

[SEAL.] JNO. C. MACGREGOR,
Notary Public.

230 & 231 EXHIBIT A, BILL OF COMPLAINT.

UNITED STATES PATENT OFFICE.

SIMON FLORSHEIM, of Chicago, Illinois, assignor of one-half to Thomas H. Ball, of same place.

Corset.

Specification forming part of Letters Patent No. 238,100, dated February 22, 1881, application filed August 12, 1880. (Model.)

To all whom it may concern:

Be it known that I, Simon Florsheim, of Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful improvement in corsets, of which the following is a specification.

The object I have in view is such an improvement upon the corset shown in the patent granted November 25, 1879, to Gustav Schilling and myself that while the same will possess all of the advantages obtained by the use of the covered and grouped metal spiral springs it will allow an easier and more equal expansion of the entire corset, will adapt itself more perfectly to the form of the wearer, and will better supply the popular want, in that it will have means for lacing the corset at the back. The improved corset also includes a better and cheaper method of securing the springs and forming the groups, whereby the elastic sections can be stitched in place on a machine without interfering with the springs, and the elasticity of the sections cannot be injured by the stitching.

My invention consists in the peculiar means for accomplishing this object, as fully hereinafter explained, and pointed out by the claims.

232 In the accompanying drawings, forming a part hereof, figure 1 is a view of the corset in position from the front: Fig. 2, a similar view from the rear; Fig. 3, an elevation of a portion of one side of the corset, showing one of the elastic side sections; Fig. 4, a detail view, showing the preferred way of arranging and forming the springs of a group, one side of the covering cloth being removed;

and Fig. 5, a vertical section through a portion of one of the elastic side sections of the corset.

Like letters denote corresponding parts in all the figures.

The corset is composed of two separable parts, A B, which are secured together at the front, as usual, by studs and loops, and at the back have eyelets for receiving lacings. The central sections, C D, at the sides of the corset, which extend from under the arms down over the hips, instead of being made as usual, are constructed of two layers or thicknesses *a b*, of cloth or other material, which thicknesses *a b* are sewed or woven together a portion of their width to form horizontal tubes *c*, which receive and cover small closely coiled spiral springs E, of metal. The pieces of cloth from which the sections C D are formed are considerably wider than such sections when completed, so that when puckered laterally they will be of the desired width. The tubes *c* are located in the center of the sections, and do not extend to the edges of the same, as seen in Fig. 4, so that margins *d* will be left at the ends of the tubes, which margins are lapped with the adjoining sections of the corset and stitched thereto. The springs are arranged, in groups, as shown with puckered spaces *e*, of cloth, between such groups. The number of springs composing the groups will vary according to location, so as to give the requisite stiffness and elasticity. Thus, at the top and bottom of the elastic side sections the groups of springs
233 should not be made so stiff as at the waist of the corset. The springs are passed throught the tubes *c*, which are puckered over the springs to the desired extent. The springs terminate at the ends of the tubes and are secured to the thicknesses *a b*, so as to leave clear margins *d* of unpuckered cloth outside of such springs. This is a great advantage over the construction shown in the patent before referred to, since it enables the elastic sections to be stitched into the corset on a sewing machine, which cannot be well done when the ends of the springs are secured by the same stitching, since the needle strikes the coils of the spring and either cuts the spring or breaks the needle. Herein also is one of the peculiar advantages over rubber cloth. Rubber cloth, when stitched into a corset, always has more or less of the rubber cords cut off by the needle, and it is thus greatly weakened, while in my corset the elasticity of the sections cannot be affected by the stitching.

The cheapest manner of arranging and securing the groups of springs to secure the above advantages is by making all the groups of each section from a single continuous length of metal spiral spring. The spring is secured at its upper end by stitches *f* passed through the thickness *a b* at the end of the upper tube *c* and inclosing one or more coils of the spring. The spring is then passed back and forth through the tubes, which are puckered at the same time. After forming one group the spring extends down between the thicknesses *a b* to the next group, and so on till the lowest group (or the uppermost group, as the case may be) is finished, when the spring may be cut off, if there is more than required, and will be secured by stitches f^1, passed through the thickness
234 *a b*. The elastic section can then be placed in the corset,

the plain margins *d* being lapped with the edges of the adjoining sections and secured by lines *g* of machine stitching.

By making the groups of springs of a single piece of coiled wire passed back and forth through the tubes and from one group to the other the groups relieve each other somewhat, and when one group is subjected to great strain the springs of the adjoining groups are stretched also. In addition, by constructing the spring in this manner no ends are left to wear through the cloth, as would be the case if separate springs sewed at their ends were used. It would be impracticable to insert separate springs and sew them in position at the ends of tubes, and if such springs were used they would pull away from the fastening stitches in a short time. The springs can only be stretched to the full width of the cloth composing the side sections, and they will be thus limited in their expansion so as not to be injured by being stretched too far.

By having the elastic sections in the sides of the corset the corset can adapt itself to different forms without the use of other elastic sections or gores, and such elastic side sections, by extending the entire length of the corset, from under the arms down over the hips, allow the front and back of the corset to expand and contract from these central side points independently of each other and more easily and freely than when a back elastic section is used.

My side elastic sections are made continuous from the top to the bottom of the corset, leaving no open spaces.

The covered metal springs possess great advantages over rubber cloth for this purpose other than those before mentioned. The rubber cloth is not nearly so durable, and soon wears out and
235 loses its elasticity at points subjected to the most strain. The rubber cloth also has equal stiffness throughout, and cannot be regulated to have different degrees of elasticity at different points; and it further does not possess that independent elasticity obtained by the groups of springs, each group acting wholly independent of all the other groups. The covered metal springs also do not heat and bind the flesh, as does the rubber cloth.

It is essential also that the springs be arranged in groups, since, if placed contiguous throughout the elastic sections, the corset would be much too heavy and expensive, and such sections would be too stiff at some points and not stiff enough at others.

As a modification of the corset it could be made continuous at the back without any provision for lacing, or the back could be provided with an elastic section; but I prefer the construction shown, since it enables the wearer to adjust the corset by means of the lacings, so that the elastic sections will always give to the corset an easy and pleasant tension.

What I claim as my invention is—

1. In a corset, an elastic section composed of two thicknesses of cloth or material *a b*, having tubes *c*, in combination with the spiral metal springs E, inclosed by such tubes and arranged in groups to regulate the elasticity of the section, such groups being all composed of a single continuous spring passed back and forth through the tubes and secured at its ends, substantially as described and shown

2. An elastic section or gore composed of material having tubes extending only part way across the same, and plain margins outside of said tubes, and spiral metal springs arranged in groups in
236 such tubes, the springs of the several groups being made continuous, substantially as described.

3. A corset laced at the back and having the elastic side sections, C D, extending from under the arms down over the hips, each of such sections being composed of material having puckered tubes extending part way across the same, and plain margins outside of said tubes, and spiral metal springs arranged in groups in such tubes and made continuous, substantially as described and shown.

SIMON FLORSHEIM.

Witnesses:
F. W. KASEHAGEN.
H. A. BAUMANN.

EXHIBIT B, BILL OF COMPLAINT.

UNITED STATES PATENT OFFICE.

SIMON FLORSHEIM, of Chicago, Illinois, assignor of one-half to Thomas H. Ball, of same place.

Elastic Gore, Gusset, &c., for Wearing Apparel.

Specification forming part of Letters Patent No. 238,101, dated February 22, 1881; application filed July 16, 1880. (No model.)

To all whom it may concern:

Be it known that I, Simon Florsheim, of Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful improvement in elastic gores, gussets, and sections for wearing apparel, of which the following is a specification.

237 The substitution of spiral metal springs for India rubber as an element in elastic gores, gussets, and sections for wearing apparel has not heretofore proved successful, for the reason that in all instances the springs have been stayed at their ends by the same stitching that secures the gore to the material of the article of wearing apparel to which it is applied. This stitching cannot be done by machine, since the wire of the springs would be cut by the needle when struck squarely, or the needle itself be broken; and when the elastic gore or section is sewed in position by hand, and the springs are secured by the same stitching, the seams are thick and uneven, and present a bungling appearance, which destroys the salableness of the article, in addition to the fact that the hand sewing has heretofore made the use of metal springs impracticable on account of the increased cost.

It is the object therefore of my invention to overcome the objections to the employment of spiral metal springs as a substitute for India rubber in elastic gores, gussets, and sections for wearing ap-

parel, and this I accomplish by extending the springs only part way across the covering material, and staying them at their ends by securing them to such covering material itself, while the covering material is extended beyond the ends of the springs to form inelastic margins, by which the gore can be secured in position by stitching these margins, on a sewing machine, to the material of the article of wearing apparel to which the gore is applied. This elastic gore is adapted more especially for corsets, for the sides of gaiters, and for use upon the waistbands of overalls and pantaloons; but it can be employed upon other articles of wearing apparel wherever
238 rubber cloth is now used, and also, on account of its strength, durability, coolness, its independence of action, and the nicety with which its elasticity can be regulated, in many places where rubber cloth cannot be employed to advantage.

My invention consists, first, in securing the metal springs to the covering material and extending such covering material beyond the ends of the springs to form inelastic margins; second, in puckering the center of such covering material, while the inelastic margins are left plain and unpuckered; third, in weaving the covering material of such elastic gore with the covering tubes formed therein in the process of manufacture, such material and the tubes being woven of a particular pattern to suit the location where the elastic gore is intended to be used, the tubes not extending to the ends of the material; and, fourth, in the peculiar fastening for securing the springs to the covering material, all as fully hereinafter explained and pointed out by the claims.

In the accompanying drawings, forming a part hereof, figure 1 is a view of the covering material with four tubes woven therein; Fig. 2, the covering material with three groups of two tubes each woven therein; Fig. 3, view of a group of four metal springs secured together by the peculiar fastening device; Fig. 4, a view of the elastic gore complete, the upper thickness of the covering material being removed at one end to show the springs; Fig. 5, a cross-section of the same on line 22 of Fig. 4, and Fig. 6 an end view of one of the fasteners for securing the springs of a group to the covering material.

Like letters denote corresponding parts in all the figures.

A is the covering material, and B the closely coiled spiral
239 springs of metal, which are inclosed in tubes *d* in the covering material. The covering material is puckered over the springs, which, however, do not extend to the edges of such material, inelastic and unpuckered margins *e* being left outside of the ends of the springs. The springs are secured at their ends to the covering material, so that they are wholly independent of the stitching that secures the gore in position. The covering material is made of such shape and size that when it is puckered over the springs the elastic gore will be suitable for the location where it is intended to be used. The elastic gore is secured in position by stitching the plain inelastic margins *e* on a sewing machine to the material of the article in which the gore is to be employed.

In addition to the advantages before stated, the elastic gore pro-

vided with these inelastic margins possesses great advantages over rubber cloth, for the reason that in sewing the rubber cloth in position more or less of the rubber ligaments are cut off by the needle, and such ligaments soon pull out in use and do not longer serve to resist the strain on the cloth, while in my gore the elasticity is not injured in the least by the stitching.

Where the purpose for which my elastic gore or gusset is to be used requires only a band having a single group of springs—as, for instance, for a strap to be applied to the waistbands of overalls or pantaloons—the covering material is divided throughout its width into tubes of equal size, as shown in Figs. 1 and 4; but where the material is of considerable width (at right angles to the spring), as when used for gores or sections in corsets or for the sides of gaiters, the tubes are arranged in groups, as shown in Fig. 2. Such groups may have two or more tubes each. Those groups where the
240 greatest strength and stiffness are required would have the greatest number of tubes to accommodate a corresponding number of springs, while in portions of the gore where great elasticity would be better and not so much strength is required the groups would have a less number of tubes, or the covering material may be provided throughout its width with contiguous tubes, and the springs could then be arranged in groups, as desired, a number of tubes between the groups of springs not being occupied.

The covering material I prefer to weave of two thicknesses, *a b*, and in the process of weaving the threads of the two thicknesses are interlocked on lines *c*, running parallel with the warp. These interlocked lines do not extend to the edges of the covering material, the margins *e*, of double thickness, extending beyond the tubes formed by such interlocked threads. For this reason the covering material has to be woven of a particular pattern, having tubes of the right length and margins of proper width to adapt the elastic gore or section, when complete, to the location where it is intended to be used.

The woven covering material with the tubes woven therein during the process of manufacture is cheaper, stronger, and neater in appearance than when such tubes are formed by sewing.

The springs of each group are preferably secured together at their ends and to the covering material by split metal tubes C, which are pushed over the end coils of the springs, the edges *f g* of the split in the tubes being lapped past each other in spiral form to accommodate them to the coils of the springs. The split tubes are pinched or partly closed at their ends to retain the springs in position.

Instead of the split tubes, the springs may be connected
241 by small plates pushed between the coils. These metal fastenings lie across the ends of the tubes between the thicknesses *a b* of the covering material, and stay the ends of the springs by fixing them to the covering material at those points.

In the elastic gore the covering material performs three offices, viz: It covers the springs, limits their expansion, and furnishes means for securing the gore in position.

What I claim as my invention is—

1. An elastic gore, gusset, or section for wearing apparel, composed

of a covering material having tubes, spiral metal springs inclosed by such tubes and not extending to the edges of the covering material, and stayed at their ends by such covering material, and inelastic margins outside of the springs, substantially as described, for the purpose set forth.

2. An elastic gore, gusset, or section composed of a covering material having tubes and spiral metal springs inclosed by such tubes and not extending to the edges of the covering material, and stayed at their ends by such covering material, said covering material being puckered at its center over the springs, and having plain unpuckered margins extending wholly outside of the springs, substantially as described and shown.

3. An elastic gore, gusset, or section composed of a covering material woven with tubes therein of a particular pattern to suit the location where the elastic gore, gusset, or section is intended to be used, such tubes not extending to the edges of the covering material, and spiral metal springs inclosed by such tubes and stayed by the covering material at the ends of the tubes, substantially as described and shown.

242 4. In an elastic gore, gusset, or section, the combination of the covering material made of double thickness, and having tubes not extending to the edges of the covering material, with spiral metal springs inclosed by such tubes, and fastenings extending across the ends of the tubes between the thicknesses of the covering material, substantially as described and shown.

SIMON FLORSHEIM.

Witnesses:
F. W. KASEHAGEN.
WM. ROTTHOFF.

243 United States Circuit Court, Northern District of Illinois.

SIMON FLORSHEIM and THOMAS H. BALL
vs.
GUSTAV SCHILLING. } In Equity.

Stipulation.

It is hereby stipulated by and between the solicitors for the respective parties that printed depositions of Simon Florsheim, Maggie Hochstaedter, Augustus Florsheim, Frederick Eggert, William Lotz, Joseph F. Baer, Ulrich Young, James P. Marsh, and Hugh W. P. Huleatt, as printed in the printed pamphlet hereto annexed, may be used in behalf of the complainants in this cause and read as evidence in said cause, the same as if regularly taken in this cause.

FLOWER, REMY & GREGORY,
Defendant's Solicitors.
COBURN & THACHER,
Complainants' Solicitors.

Chicago, March 17th, 1883.

243½ UNITED STATES PATENT OFFICE.

Interference.

Application of Gustav Schilling, filed Nov. 19, 1881.

Patent No. 238,100, granted Feb. 22d, 1881, to Simon Florsheim.

GUSTAV SCHILLING
vs.
SIMON FLORSHEIM.

Subject-matter—corsets.

Testimony on Behalf of Simon Florsheim.

Coburn & Thacher, att'ys for Florsheim.

243¾ (Index omitted in printing. See general index.)

244 Before the Commissioner of Patents.

In the matter of the interference between the application of Gustav Schilling for a patent on corsets, filed November 19th, 1881, and the patent No. 238,100, granted February 22nd, 1881, to Simon Florsheim, now pending before the Commissioner of Patents.

Notice to Take Testimony.

To P. C. Dyrenforth, Esq., attorney for said Schilling.

SIR: You are hereby notified that on Monday, April 3, 1882, at ten o'clock in the forenoon, at our offices, Nos. 52 to 59 Ashland block, in the city of Chicago, we shall proceed to take the testimony of Simon Florsheim, William H. Lotz, Augustus Florsheim, Sarah Florsheim, Frederick Eckert, Ulrich Young, Joseph Baer, W. H. Huleat, and James P. Marsh, all of the city of Chicago, and Maggie Hochstaedter, of Marysville, in the State of California, and others, as witnesses in behalf of said Florsheim. The examination will continue, from day to day, until completed. You are invited to be present and cross examine.

COBURN & THACHER,
Attorneys for Simon Florsheim.

Chicago, Illinois, April 1, 1882.

Service of the above notice acknowledged this first day of April, 1882.

P. C. DYRENFORTH,
Attorney for Schilling.

245 Before the Commissioner of Patents.

In the matter of the interference between the application of Gustav Schilling for a patent on corsets, filed November 19th, 1881, and the patent No. 238,100, granted February 22d, 1881, to Simon Florsheim.

Testimony on Behalf of Simon Florsheim.

Depositions of witnesses examined on behalf of Simon Florsheim, pursuant to the annexed notice, at the offices of Messrs. Coburn & Thacher, Nos. 52 to 59 Ashland block, in the city of Chicago, Ills., on Monday, April 3, 1882.

Present: P. C. Dyrenfurth, Esq., on behalf of said Schilling, and L. L. Coburn, Esq., on behalf of said Florsheim.

SIMON FLORSHEIM, being duly sworn, deposes and says, in answer to interrogatories proposed to him by his counsel, as follows:

Q. 1. What is your name, age, residence, and occupation?

A. My name is Simon Florsheim; my residence is Chicago; my business is wholesale hats and caps, and also engaged in the manufacture of corsets; age, 44.

246 Q. 2. Are you the inventor and patentee of letters patent No. 238,100, granted Feb. 22, 1881, to Simon Florsheim, which is involved in this interference?

A. I am.

Q. 3. When did you conceive the idea that constitutes the subject-matter involved in this interference, and what did you first do towards putting it into form or shape by making either drawings or an article containing the invention?

A. I conceived the idea in the early part of February, 1879, and made a piece containing this material about that time.

Q. 4. Will you describe the piece which you made about that time, to which you refer in your last answer?

A. Two pieces of cloth which I had stitched together to form tubes in groups of three or four tubes. I then inserted in these tubes solid wire or sticks of wire, and crimped the material; after which I withdrew the solid wire and ran a coiled spring into these tubes continuous from top to bottom.

Q. 5. Did these tubes which contained the continuous coiled-wire spring which extended through these different groups of tubes from top to bottom extend the entire width of the two pieces of cloth? If not, explain how they did extend in reference to the width of the cloth, and what purpose you had, if any, in making the length of those tubes the same or different from the width of the cloth?

(Objected to as leading.)

A. The stitching to make these tubes came within about three-quarters of an inch of the edge of the covering material, to leave a margin on each side, for the purpose of stitching the same into any article, and not touch the coiled-wire spring.

247 Q. 6. Have you that piece now; if not, can you tell where it is or what became of it; if you have it will you produce it, that it may be identified and attached to your deposition as an exhibit?

A. I have it in my possession—one of the pieces which I made.

(Witness here produces a piece of elastic fabric, and the same is marked "Florsheim Exhibit No. 1.")

Q. 7. When was this elastic fabric marked "Florsheim Exhibit No. 1" made by you?

A. Early part of February, 1879.

Q. 8. Did you make any other pieces like it in February, 1879; if so, how many? And if any of them were used for any purpose, state for what purpose.

A. I made one piece like it in construction which I had sewed into a pair of overalls—that is, in the back part of a pair of overalls—which I handed to Mr. Gustav Schilling.

Q. 9. Did you afterwards see the overalls? And if anything further was done either with those identical overalls or any overalls by you and Mr. Schilling in connection, please state what it was.

A. I saw the overalls, afterwards, or a pair of overalls, with the same constructed piece of elastic material in the back of the overalls, and the same overalls had a piece or a strap of elastic material on the waistband of the same—on each side, I think, as near as I can recollect.

Q. 10. Do you know how the elastic pieces that were on the waistband on each side of the overalls were constructed?

A. They had either three or four coiled springs which were cut off—each spring—at the end, and each spring sewed separately on to the covering material.

248 Q. 11. What was done by you and Mr. Schilling, if anything, in reference to those overalls having the elastic gore in the back, made by you, with a continuous spring and a margin, and the two elastic pieces on the waistband—one on each side of the overalls—attached to the overalls, after you gave them to Mr. Schilling, having a separate coiled spring in each tube of the fabric, as you have described?

(Question objected to as assuming what the witness has not stated to be a fact.)

A. Mr. Schilling and myself took these overalls to the office of Wm. H. Lotz, patent solicitor, and made application for a patent on the same.

Q. 12. Did you and Mr. Schilling obtain a patent for it; and, if so, of what date?

A. We obtained a patent on the same, dated Feb. 17, 1880.

Q. 13. When did you make your application for that patent?

A. The application was filed at the Patent Office March the fourth, 1879, and the application before the patent solicitor in February, same year.

Q. 14. Did any one assist you in making either this elastic piece

marked "Florsheim Exhibit No. 1" and the piece which you put into the back of the overalls? If so, state who assisted you and where they were made.

A. Mrs. Maggie Hochstaedter assisted me in so far as to stitch the cloth for both pieces, as I directed or had marked out for her on the cloth; and Mr. Augustus Florsheim assisted me in holding the cloth together, after being crimped, while I withdrew the solid wire sticks and inserted the coiled-wire spring. They were made at my house, No. 2503 Michigan avenue, Chicago.

249 Q. 15. Where, if you recollect, did you obtain the coiled-wire spring that you used in making those pieces of elastic fabric that you have described; and where, if you know, did you obtain the overalls into the back of which you sewed that gore having the continuous coiled-wire spring, as you have stated?

A. The overalls I purchased from Price, Strauss & Kahn, and the coiled wire, as near as I can recollect, I obtained of a man by the name of Marsh.

Q. 16. Did you make any other pieces of elastic fabric having the continuous spring running through the tubes and leaving a margin soon after you made the two pieces above specified for any other purpose besides making overalls? And, if so, state when, where, and what for.

A. The latter end of February, 1879, I made three pieces of the elastic material, which I had sewed into a corset, one on each side from under the arms over the hips the entire length of the corset and one for the back of the corset that otherwise laced. This back part was also the entire length of the corset, which I made at my house, No. 2503 Michigan avenue.

Q. 17. Who assisted you, if any one, in making those elastic pieces and the corset; and what became of the corset, if you know?

A. Mrs. Maggie Hochstaedter assisted me in the sewing of the pieces, and also sewing the pieces into the corset, and she afterwards wore the same. This same corset I showed to a Mr. Baer, manager at Chas. Gossage & Co.'s, in the notion department, and he introduced me to a Mr. Huliat, manager of the corset department at Chas. Gossage & Co.'s, to whom I exhibited this same corset.

250 Q. 18. Did you and Mr. Gustav Schilling make a joint application for patent about that time on a corset? And, if so, state why he joined you in that application, stating which part of that invention he made.

A. We made a joint application on a corset, of which Mr. Schilling was the inventor of the shoulder-straps.

Q. 19. Did you obtain a patent; and, if so, of what date was the application filed in the Patent Office, and what is the date of the patent?

A. We obtained a patent. The application was filed March the tenth, 1879, and the patent is dated November the 25th, 1879.

Q. 20. Did the model which was filed with that application contain, according to your best recollection, any elastic pieces made, in accordance with your invention, with a continuous coiled spring extending from group to group and from the top to the bottom of the piece?

If so, what piece in the model, and how were the shoulder-straps which you say Mr. Schilling added to the corset made, with reference to the coiled-wire spring being continuous or otherwise?

(Objected to as leading.)

A. The piece in the back of the corset—of the model—was made according to my invention, and also the gore on the side of the corset over the hips made in groups with the continuous wire spring, as near as I can recollect, running either the entire length of the section or most of the entire length of the section with a non-elastic margin on each side of the pieces; and the shoulder-straps—the coiled wire was cut off and attached to the covering material, being as many lengths of the shoulder-strap as there is pieces of wire in it.

Recess is here taken until 2 o'clock p. m.

251 Met, at 2 p. m., pursuant to adjournment.
Present: As before.

Q. 21. Did you make, at about that time, any other corset which had your continuous coiled-wire spring fabric? And, if so, state about when and where this elastic fabric was placed in the corset.

A. The fore part of March, 1879, I made two sections of the elastic material, which I had sewed into the sides of the corset from under the arms over the hips.

Q. 22. What became of that corset?

A. That corset I gave to Mrs. Augustus Florsheim.

Q. 23. What else did you do, if anything, about making any other elastic fabric with the continuous spring and non-elastic margin at about this time?

A. I made a few pieces of this material for a goring in a pair of shoes.

Q. 24. Where did you make those pieces, who assisted you, if any one, and what became of them?

A. I made the pieces at my house, and was assisted, as far as the sewing of the covering material is concerned, by Mrs. Maggie Hochstaedter. I cannot now say what became of the pieces.

Q. 25. Did you show them to any one that you remember of?

A. I showed them to some parties at the store of Florsheim Brothers.

Q. 26. Do you remember whether you left any of those pieces there at that store for them to put them into shoes?

(Objected to as leading.)

A. I left them at the store; no doubt they were put into a pair of shoes. I am inclined to think I left them with Augustus Florsheim.

252 Q. 27. At the time that you and Mr. Gustav Schilling made the joint applications either for the overall patent or for the corset patent above referred to, was there anything said, either by Gustav Schilling or by you in his presence, in reference to who in-

vented the elastic fabric with the continuous spring and non-elastic margin; and, if so, what did Mr. Schilling say about it, and in whose presence, if any one?

A. At the time when we made the joint application for a patent on the overalls Mr. Schilling, as well as myself, stated to Mr. Wm. H. Lotz that I was the inventor of the continuous wire spring and non-elastic margin.

Q. 28. Was there any reason that you know of why there were no claims put in either of those patents that you applied for jointly with Mr. Schilling for the elastic fabric having the continuous spring and non-elastic margin, such as were put into your application which you afterwards made alone; which application was filed in the Patent Office August 12, 1880?

A. The only reason that I can now give is that—as I then understood it—*that* there couldn't be a joint application for an invention that I invented myself.

Q. 29. You say that you are engaged in the manufacture of corsets. How long have you been in that business, to what extent, and what kind of corsets are you making?

A. I've been in the manufacture of corsets since a year ago last fall—about a year and a half—and we manufacture corsets with coiled-wire sections in them—the same as described in my patent issued Feb. 22, 1881. We employ from 250 to 275 hands.

Q. 30. Do you manufacture exclusively this kind of corset?
253 If not, about what proportion do you make of this kind as compared with all other kinds that you make, if any?

A. We manufacture corsets with coiled-wire spring sections in of different styles.

Q. 31. I intended to ask you in my last question whether all the corsets which you make are substantially the same as the invention patented in this patent issued to you Feb. 22, 1881—that is, whether they all have elastic coiled-wire fabrics with continuous springs and non-elastic margin, or whether you make in addition to such corsets old styles of corsets; and, if you do, what proportion of your new patented corset as compared with all the old kind which you make, if you make any?

(Objected to as leading.)

A. We make only corsets with the wire sections in of continuous wire spring and non-elastic margin and none others.

Q. 32. In your answer to question 30, by "of different styles," did you mean different styles or kinds of elastic fabric or corsets of different styles? What did you mean by that part of your answer?

(Objected to as leading and suggestive.)

A. In stating, in answer 30, "we manufacture different styles of corsets" I had reference only to the shape of the corset. The elastic material we make all of a continuous wire spring and non-elastic margin, since this is the only way it can be sewed into a corset.

Q. 33. Please state generally what your experience has been in reference to the novelty of this corset on the market and to the trade,

and whether you have been compelled to expend any considerable amount of money and labor in introducing it and building up your trade; and, if so, in general terms, about how much?

254 (Question objected to as immaterial and irrelevant.)

A. When first starting in to introduce this corset we were obliged to expend a very large sum of money to bring it before the public, and only the most diligent work and very large advertising—more advertising than any concern in this line has ever done in the short period—has brought it to its present success; and at present—or since the last few months—we find a great demand for our corset. At first, for a long time, it looked as though all the capital invested might be lost. The success of the undertaking is largely due to the skill and able management of the head of our firm, Mr. Thomas H. Ball. When introducing it at first people were very shy of it, thinking that the elastic material was rubber, and only the guaranteeing on our part, warranting the durability of the elastic section, and offering to take back any corsets in which the elastic section would give out either by wear or age—such as rubber usually does—we were enabled to induce merchants or the public generally to purchase it. We have invested up to now between fifty and sixty thousand dollars, of which a large amount has been expended in advertising and in general introduction of the corset—and machinery also, of course—experimental machinery.

Q. 34. When you first made elastic fabric having continuous wire spring and non-elastic margin have you any bills for material which you purchased by which you are enabled to fix the dates of such purchase; and, if so, will you produce them, state what they are, and hand them to the notary to be identified by him and attached to your deposition as exhibits?

255 A. I have one bill or a statement for a pair of overalls which I purchased in the month of February, 1879. I before stated that I purchased the pair of overalls from Price, Strauss & Kahn. I find, by looking at the statement in my possession, that I purchased them of Price, Levi & Strauss, the same firm, with the exception of Mr. Levi being then in the firm, while I was under the impression that it was Kahn. This pair of overalls is the pair that I referred to in my former statement, which I purchased in the month of February, 1879. I did not pay for these overalls when I bought them, and they sent me a statement on March the first, which I then paid, and this is the statement. I have also a bill for wire—brass wire, spring wire—from the Plume & Atwood Manufacturing Co., dated Feb. 24, 1879, for 5¼ pounds of brass spring wire at 52 cents per pound, making $2.73. This was forwarded to me by express from Thomaston, Connecticut, and this is the bill that I refer to.

Q. 35. Was that the first wire that you purchased before you made any continuous coiled-wire spring elastic fabric?

A. I purchased wire in smaller quantities early in February, or maybe in the latter end of January—last few days in January, 1879.

Witness produced bill for overalls, and the same is marked "Florsheim Exhibit No. 2, Geo. R. Cutler, notary public;" also bill for wire, and the same is marked "Florsheim Exhibit No. 3, Geo. R. Cutler, notary public."

Counsel for Mr. Florsheim give notice that they will refer to the application on file in the Patent Office of Florsheim and Schilling for the overall patent, dated Feb. 17, 1880, and also of the corset patent, dated Nov. 25, 1879, at the hearing.

256 Q. 36. Under what circumstances did you first have any business relations with Gustav Schilling in reference to patent?

A. Mr. Schilling came to me at our place of business, on Wabash avenue, some time in the month of January—early in January—1879, and exhibited to me a pair of gloves which had an elastic strap across the wristband of the glove; told me that he wanted somebody to go in with him in taking out a patent on the same; asked me if I was willing to defray the expense of obtaining a patent if he would assign a half interest to me. I asked him for an explanation, what his material consisted of, and he stated that it was a coiled-wire spring. I questioned him generally about the making of it, how it was made, which he explained to me by taking one or two pieces of cloth or leather, stitch them together across the material into tubes running from end to end, and insert wire sticks to crimp the material, then cut the wire—different pieces of wire—the required length, and put in the coiled wire after withdrawing the solid wire sticks and sew the coiled wire at the end of the covering material. He showed me the elastic strip, and after questioning him about the cost of wire, etc., the cost of making the material and the expense of obtaining a patent, I consented to go in with him, and he went with me to Mr. Lotz, and he made the application for a patent.

Q. 37. Did you obtain a patent for that glove? If so, what is the date of it?

A. We obtained a patent, which is dated August 5, 1879.

Q. 38. Did he afterwards apply the same kind of fabric to any other article and apply for a patent at your expense, assign-
257 ing a half interest to you? If so, what article, and what was the date of the patent, if any was obtained?

A. He applied the same material—made in the same way as the glove—to gaiters, as a gore in gaiters. I defrayed the expenses of obtaining the patent, and he assigned a half interest to me. The patent is dated April 22, 1879.

Q. 39. Was there any difficulty or trouble in manufacturing articles with elastic coiled-wire fabrics made like that shown in the glove patent and the gaiter patent which you sought to overcome or obviate by making the continuous coiled-wire spring fabric with unelastic margin? If so, state what it was.

(Objected to as leading.)

A. About the same time when Schilling made application at

Lotz's office for a patent for elastic gores for gaiters he made four pieces of the elastic gores for a pair of gaiters for myself. I desired to see how the material would work practically. I took these gores for a pair of gaiters to my brother's shoe store—Augustus Florsheim—and he went with me to his shoemaker, where I had my measure taken for a pair of gaiters to be made with these elastic gores in the same. A day or two after that I was informed by the shoemaker that the material was no good; that by sewing the same into the uppers of the gaiters with a sewing machine the needle of the sewing machine had cut the wire at several places, which made it useless for the shoes or gaiters. I took the shoes to my brother's store and exhibited them to Mr. Schilling, either the same day or the next day, and informed him that it was no good. I asked him if he knew of any other way to make it, and he stated that
258 he did not; that he had made it that way in the old country and didn't see why it shouldn't work. I had these elastic sections taken out again and had rubber goring put in, and my brother sold the shoes for me afterwards. I did not wear them. Aside from the cutting of the wire by machine, the sewing of the goring or of this elastic material, the springs running to the end of the same, made a very clumsy looking job.

Adjourned till ten a. m. of April 4, 1882.

APRIL 4, 1882—ten a. m.

Met pursuant to adjournment.

Present: As before.

Q. 40. When you had made your invention, improving the elastic goring of the shoe or gaiter, did you manufacture the goring; and, if so, in what way—that is, who invested the money and who had charge of the manufacture?

(Question objected to because it assumes matters not stated by the witness, except in his preliminary statement.)

A. Early in the spring of 1879 I employed Mr. Gustav Schilling to make shoe goring. I furnished him the leather and other material—wire, etc.—and paid him for his labor. Later, in the fall of 1879, Florsheim Brothers, who were in the boot and shoe business, and myself employed Mr. Gustav Schilling at a weekly salary of $20.00, and also an interest in the profits, if there was any, after deducting the $20.00 to be paid to Mr. Schilling. The capital necessary for the business was to be furnished by Florsheim Brothers, and Mr. Schilling was to superintend manufacturing of the material.

Q. 41. Can you tell about how much you paid Mr. Schilling for the labor of making the shoe goring before Florsheim Brothers furnished the capital to manufacture?

259 A. From a hundred to a hundred and fifty dollars, I should say, as near as I can recollect.

Q. 42. Can you state about how many weeks Mr. Schilling was

paid a salary of $20.00 per week? And state why, if you know, his employment by you and Florsheim Brothers was discontinued.

A. He was paid a salary of $20.00 per week for either four or five weeks. His employment was discontinued on account of not attending to the business as he should have attended to the same—coming late in the morning and not coming at all some days.

Q. 43. Was there anything said by Mr. Gustav Schilling or by you in his presence at the time that his employment by you and your brothers was discontinued in reference to his having applied for a patent on a corset which did or did not contain your invention, which constitutes the subject-matter of this interference? If there was, state what was said about it.

A. It was the last day that he was working; my brother, Augustus Florsheim, and myself were reprimanding him and finding fault with the negligent way he was working, when he told me and my brother that it was his intention to quit anyhow; that he had applied for a patent for an elastic section to be laced in the back of a corset. I asked him, "Did you apply or make a claim on my invention of a non-elastic margin and a continuous wire spring?" And he answered that "he did not;" that "he would not give one cent for it, anyhow."

Cross-examination:

C. Q. 1. Mr. Florsheim, have you in the course of your life ever been a mechanic—that is, worked at any mechanical trade?

260 A. I never learned a trade, but I have a great deal of taste and am able to do a great many things in a mechanical way, and have only lately been granted a patent on an invention of my own.

C. Q. 2. What is the nature of the invention on which you have lately been granted a patent?

A. Glove-fastener.

C. Q. 3. Have you tools and a workshop at your house or anywhere with which you are in the habit of working when you are at leisure?

A. I have a complete set of carpenter's tools.

C. Q. 4. What tools did you use, or what instruments, when, as you say, you were making experiments in the construction of elastic gores in February, 1879?

A. I used solid wire sticks only.

C. Q. 5. Those are what you put into the tubes after they had been formed, to enable you to pucker them; is that correct?

A. It is correct.

C. Q. 6. Where did you get the wire spring which you inserted in those tubes?

A. Of J. P. Marsh.

C. Q. 7. When did you get it?

A. Early in February, 1879.

C. Q. 8. What was the nature of the springs that you used—that is to say, how did it compare with the coiled spring that you now use?

A. It was coiled in nearly the same way; it might have been a trifle larger or smaller.

C. Q. 9. Who is J. P. Marsh?

A. He is a machinist—or at least he has a machine shop—in this city.

C. Q. 10. Did he have the coiled-wire spring in stock or did he make it for you to order?

261 A. He made it for me.

C. Q. 11. Did Mr. Schilling know of your getting this wire spring from Marsh?

A. That I could not say; he coiled simply a small quantity for me.

C. Q. 12. Have you any bill, statement, or record in your possession which will establish the time when you bought the coiled spring from Marsh?

A. I gave Mr. Marsh the wire, and he coiled a small quantity for me and charged me nothing for it, consequently I have no bill.

C. Q. 13. When and where did you obtain the wire which Mr. Marsh coiled for you?

A. I obtained the wire, as near as I can recollect, either of the Plume & Atwood Co., Besley, or some other concern from whom I was in the habit of buying wire, either in the latter part of January or fore part of February.

C. Q. 14. Please examine "Florsheim's Exhibit No. 1" and state whether the coiled spring used in that exhibit is a part of that which was made for you by Marsh.

A. I think it is.

C. Q. 15. Can you swear that it is?

A. Unless it has been changed by somebody I could swear that it is.

C. Q. 16. How could it have been changed by anybody without your knowledge?

A. I do not think that it could have been very well done.

C. Q. 17. If the wire springs could have been changed without your knowledge how are you able to swear that that is the identical device made by you in February, 1879? I refer to Exhibit No. 1.

262 A. I did not say that it had been changed. I believe it to be the identical device made by me in February, 1879.

C. Q. 18. Where has it been lying during the past three years and how were you able to put your hands upon it when you wanted it?

A. It had been in my desk at my house in one of my drawers.

C. Q. 19. Have you seen it there from time to time during the past three years?

A. I have.

C. Q. 20. Who is the Mrs. Hochstaedter to whom you have referred?

A. A lady that lives at present in Marysville, California, and is a sister of my wife.

C. Q. 21. You say that soon after making the piece of spring fabric, "Exhibit No. 1," and the gore which was inserted in a pair of over-

alls you made three pieces of such fabric for a pair of corsets. Was that also in the month of February, 1879?

A. It was the latter part of February, 1879.

C. Q. 22. What part of those fabrics did Mrs. Hochstaedter make and how did she do it?

A. She stitched the sections for the elastic section in tubes and groups, leaving on each side a margin which was not sewed, as I had marked out on the cloth.

C. Q. 23. What did you then do with those three pieces?

A. I inserted the solid wire sticks and crimped the cloth on the same, after which I withdrew one wire, inserted the spring into that tube, and go on that way, withdrawing one wire after another, and put in the coiled spring from top to bottom.

C. Q. 24. Who sewed those pieces into the corset?

263 A. Mrs. Maggie Hochstaedter.

C. Q. 25. That is the corset which you made her a present of, is it?

A. I exhibited this corset to a Mr. Baer, at Chas. Gossage & Co.'s, and to a Mr. Huliat, also at Chas. Gossage & Co.'s; after that Mrs. Hochstaedter wore the corset.

C. Q. 26. Has that corset been preserved to the present time? If not, what has become of it?

A. I do not know what has become of it.

C. Q. 27. When and from whom was the corset obtained into which the elastic pieces were inserted?

A. I think I purchased the same of Field, Leiter & Co., or may be Gossage, early in February, 1879.

C. Q. 28. How are you able to fix these dates so definitely?

A. My father-in-law died early that month, and I know it was about that time.

C. Q. 29. Are you positive that in the elastic gore that you made previous to the corset just referred to and which was inserted into a pair of overalls the spring was continuous from top to bottom, the one spring entending from tube to tube and from group to group?

A. It was continuous to the extent of the length of the wire that I had at my disposal.

C. Q. 30. Do you remember whether the entire spring was made in one piece, or whether it was made in detachments?

A. I was at that time not able to get the wire coiled as long as I desired, and could not positively say that it was continuous from top to bottom.

C. Q. 31. How many groups were there in the gore that was inserted in the back of the overalls?

264 A. That I do not remember.

C. Q. 32. Can't you give an estimate?

A. I cannot.

C. Q. 33. Were there more than two?

A. I could not say.

C. Q. 34. Were there more than one?

A. There might have been two.

C. Q. 35. Might there have been three?

A. Possibly.

C. Q. 36. Might there have been four?

A. I think not.

C. Q. 37. Is the drawing of the patent which was afterwards obtained for those overalls a correct representation, so far as the gore is concerned? I refer to the patent granted to Schilling and Florsheim Feb. 17, 1880, No. 224,559.

(Witness examines the patent referred to.)

A. That is more than I can say; I only know that I handed a pair of overalls to Mr. Schilling with the goring in the back of the same; but it looks a good deal like the one I made.

C. Q. 38. Are you able to swear that in the model of that application which went to the Patent Office the groups of the gore in the back of the overalls were made of a continuous spring, either in whole or in part, and that any two of those groups were connected together by means of the spring running from one to the other?

A. I am, as near as I remember.

C. Q. 39. Have you lately had that model examined in the Patent Office to confirm your opinion?

A. I have.

C. Q. 40. Who examined the model?

A. I could not say; I do not know and have no means of
265 knowing who the party was unless I should enquire, which I have not done.

C. Q. 41. Who reported the result of the examination to you?

A. Mr. Coburn.

C. Q. 42. When did he so report to you?

A. It might be four or five weeks ago—I couldn't say exactly.

C. Q. 43. Now, I understand you to say that subsequently another corset was made, of which you prepared the elastic side sections and Mr. Schilling the elastic shoulder-straps, and that this corset was used as a model in a joint application for a patent made by yourself and Mr. Schilling; is that correct?

A. I did not say so—not in substance.

C. Q. 44. Please repeat what you did say.

A. I stated that I made sections for a corset in the month of March, 1879, with the elastic material as described, which I had sewed into the sides of the corset from under the arms over the hips and the corset laced in the back.

C. Q. 45. Well, what was done with that corset?

A. That corset I gave to my brother's wife.

C. Q. 46. Who made the springs of the corset that was used for a model in the joint application of Schilling and Florsheim and who sewed them into the corset?

A. I am inclined to think that Schilling made them.

C. Q. 47. You mean that Schilling made the elastic gores that were inserted in the sides of the corset, do you?

A. I am under that impression.

C. Q. 48. Now, how were those elastic side gores made?

266 A. With a non-elastic margin and the continuous spring.

C. Q. 49. Was the spring in groups?

A. I think they were; it was only a short piece over the hip; there might have been but one group.

C. Q. 50. Does the drawing of letters patent No. 222,082, dated Nov. 25, 1879, now shown you, correctly represent the side sections as they appeared in the corset which was used as a model?

A. I should think they did.

C. Q. 51. Are you able to swear that the groups there shown were made of a continuous spring, extending all the way from the top to the bottom of the gore and connecting the several groups?

A. I am able to swear that the spring ran either part way continuous or possibly the entire length.

C. Q. 52. There was also an elastic back section in that corset extending from top to bottom, was there not?

A. There was.

C. Q. 53. How was that back section made with respect to the spring?

A. It was made with a non-elastic margin and a continuous spring, either part way of the length of the section or the entire length.

C. Q. 54. Do you know whether or not any two or more of the groups were connected by the spring?

A. They were.

C. Q. 55. Have you also had this model examined by your attorney in Washington?

A. Mr. Coburn had it examined.

C. Q. 56. Do you remember going to the Chicago public
267 library with Mr. Schilling and examining the records of English patents there?

A. I might have, but I don't remember.

C. Q. 57. Don't you remember going with him to the Chicago public library at the instance of Mr. Lotz and there finding an English patent which described a fabric like the one you say you invented, except that rubber cord is employed in place of wire spring, and that no mention is made of groups?

A. I never read or saw this English patent until I heard it read at the examination of Mr. Schilling and his witnesses.

C. Q. 58. You have no recollection of reading any books in company with Mr. Schilling at any time at the Chicago public library? Is that what you mean to swear to?

A. I have been at the public library to look up English patents referring to coiled-wire spring, but cannot recollect of Schilling having been present.

Adjourned till 2 p. m.

Met at 2 p. m. pursuant to adjournment.

Present: As before.

C. Q. 59. After hearing read the British patent to Miller, No. 3451, of 1866, which is the one that was read in your presence at the examination of Mr. Schilling in this interference, of what, in

your opinion, were you the original and first inventor in regard to this elastic fabric?

A. I claim to be the inventor of the continuous wire spring and non-elastic margin.

C. Q. 60. Does not Miller, in the specification of his British patent, also describe a non-elastic margin with his fabric?

268 A. I think he does say something about a non-elastic margin, but produced, as I understand it, in an altogether different manner; but do not think that I am competent to give the details, since I have not studied it sufficiently.

C. Q. 61. Does he not produce his non-elastic margin by having his tubes extend only part way across the material sewed, leaving a space between each end of the tube and the edge of the material?

A. I think not.

C. Q. 62. How, in your opinion, does he produce it?

A. I am inclined to think, as near as I can recollect from the hearing of the patent read at the hearing of Schilling, that he sews the material clear across the cloth and then rips the sewing sufficient to make a margin. This is only an opinion, and from the hearing of the patent read I am not able to form a positive idea.

C. Q. 63. Now, supposing that you are correct as to the manner in which the elastic margin is formed according to Miller's British specification, what difference do you find between his fabric and yours, so far as the non-elastic margins are concerned, after the fabrics are made?

(Question objected to as immaterial and as having no earthly bearing upon this case other than to prevent the issuing of a patent to Mr. Schilling.)

A. The way I produce the non-elastic margin by sewing only part way across the covering material, leaving the thread intact from tube to tube and from group to group, produces a stronger end to the tubes for holding the wire, and also are enabled to make it more uniform than by ripping the sewing.

269 C. Q. 64. Do you consider that you invented anything in substituting coiled-wire spring for the rubber cord described in Miller's British specification?

A. I most certainly do.

C. Q. 65. Was it not old, at the time you made your invention, to employ coiled-wire spring in puckered tubes in corset gores?

(Question objected to as immaterial; and, further, because no particular old patent or prior use is referred to, and because this subject-matter does not relate generally to the use of coiled-wire springs, but only to coiled-wire springs when applied in a certain manner, to wit, in the manner invented by Mr. Florsheim.)

A. The manner in which I made and applied this material is entirely new.

C. Q. 66. What way was that?

A. To use coiled-wire spring continuous and leave a non-elastic margin outside of the elastic material.

C. Q. 67. Then, do you consider that to substitute coiled-wire spring for the rubber cord in Miller's British specification would constitute an invention, coiled-wire spring in puckered tubes having been used before for gores in corsets and other articles?

A. I have never known this material to be used in corsets, as I invented it.

C. Q. 68. Question repeated.

A. I consider the use of coiled-wire spring, in the manner I invented it, far superior in every respect to rubber.

C. Q. 69. Now, will you please tell me what you mean by the words "in the manner I invented it?"

270 A. I mean an elastic material made of a continuous wire spring running in groups, with a non-elastic margin.

C. Q. 70. Suppose that the fabric were made of a continuous coiled-wire spring in groups without a non-elastic margin, would you consider that to be included in your invention?

A. I would.

C. Q. 71. Then, I understand you to say that you consider your invention to include the feature of a continuous coiled-wire spring in groups of puckered tubes formed between two layers of fabric or other material, the spring passing from tube to tube and from group to group with or without a non-elastic margin; is that correct?

A. It is, as I understand it.

C. Q. 72. And that is the whole of your invention, is it, aside from the non-elastic margins?

(Question objected to, as the Florsheim patent, which constitutes the subject-matter of this interference, and especially the claims of said patent, constitute the best evidence of what constitutes the whole of Mr. Florsheim's invention, which is involved in this controversy.)

A. I claim as my invention all that is granted to me in my patents.

C. Q. 73. You say that early in the spring of 1879 you employed Mr. Schilling to make shoe gorings, and furnished him with materials for the purpose and paid him for his labor. Have you any accounts in your books of that date showing such payments to Mr. Schilling?

A. He made these gorings for me during the spring and summer of 1879, and I paid him, and so did the book-keeper at our establishment, at various times and various sums of money. There

271 is one charge in the cash book of our concern where a charge is made as having been paid to Mr. Schilling and charged to my individual account. When money was paid him in my presence it would only appear on our books as so much cash charged against my account.

C. Q. 74. What is the amount of that single charge in your books of money paid to Mr. Schilling?

A. It is either twenty or twenty-five dollars; I cannot now state.

C. Q. 75. When was it that yourself and your brothers employed

Mr. Schilling at a weekly salary of twenty dollars and how long did he continue in your employ in that manner?

A. It was some time in October—the latter end, I think—until the latter end of November, 1879; either four or five weeks; I cannot say particularly.

C. Q. 76. Now, is it not a fact, Mr. Florsheim, that at that time Mr. Schilling was working with you pursuant to a partnership contract which existed between you and which was drawn up by Mr. Nissen?

A. Mr. Schilling, myself, and Florsheim Brothers entered into an agreement, which was drawn up by Mr. Nissen, under which Mr. Schilling was to receive a weekly salary of twenty dollars, and if the undertaking proved a success he was to receive his share of the profits, after deducting the twenty dollars salary which he had received.

C. Q. 77. Then that was a partnership in which Mr. Schilling was guaranteed twenty dollars a week, was it not?

A. It was simply an agreement.

C. Q. 78. That is to say, a partnership agreement, by which
272 Mr. Schilling was to receive a share of the profits, but was guaranteed twenty dollars a week. Was not that the case?

A. No, sir. He was to receive twenty dollars per week and his share of the profits, after deducting the twenty dollars. That's all there was to the agreement, as near as I can remember.

C. Q. 79. Is it not a very common thing in business for one of several partners to receive a stated salary which is deducted from profits?

A. It is not, to my knowledge.

C. Q. 80. Were you ever in partnership with Mr. Schilling in the manufacture of glove springs?

A. I was not.

C. Q. 81. About the month of May, 1879, did not Mr. Schilling make ninety dozen glove springs, which you sold for a dollar a dozen, giving one-half the proceeds to Mr. Schilling?

A. Mr. Schilling made glove springs for me; the exact number of dozens I cannot exactly state. I furnished the material for making the same and paid him a certain amount per dozen for his labor.

C. Q. 82. Wasn't it an arrangement by which you furnished the material, he furnished the work, and you shared the profits?

A. It was not. I furnished a good deal more material than I ever received back again, including what I had paid Mr. Schilling.

C. Q. 83. Did you not, in the year 1879, take an order from a dealer on Lake street for six gross of the shoe springs which Mr. Schilling manufactured, and for which you received the money and divided it with him?

A. I took an order for some springs from a dealer on Lake
273 street; the number of gross I cannot now speak; I furnished the material for making the same and paid Mr. Schilling for his labor, and I delivered the shoe springs.

C. Q. 84. But you and Mr. Schilling were joint owners of the two

patents under which the glove springs and shoe springs just referred to were made, were you not?

A. The glove springs and the shoe goring were made with a continuous wire and non-elastic margin, which was my invention.

C. Q. 85. Were they in groups?

A. The shoe goring were made in groups; the glove spring was not.

C. Q. 86. Have you any patent for the spring when not in groups, with the groups connected?

A. The glove spring was one group.

C. Q. 87. And you consider that you have a patent for that, do you?

A. I consider that I have a patent for all that is granted to me in my patents.

SIMON FLORSHEIM.

Subscribed and sworn to this 4th day of April, 1882, before me—
GEO. R. CUTLER,
Notary Public, Cook Co., Ill.

[NOTARIAL SEAL.] Adjourned to ten a. m. of April 5, 1882.

274 APRIL 5—ten a. m.

Met pursuant to adjournment.

Present: As before.

The next witness, Mrs. MAGGIE HOCHSTAEDTER, being first duly sworn, deposes and says as follows:

Q. 1. What is your name, age, and residence?

A. My name is Maggie Hochstaedter; Marysville, California; age, 28.

Q. 2. How long have you lived in California?

A. I left here in August, 1879.

Q. 3. Before going to California in August, 1879, did you know Simon Florsheim; and, if so, did you know of his making any elastic pieces of any kind?

A. I know Simon Florsheim, and I know of his making elastic pieces. I saw him make elastic pieces.

Q. 4. Did any one assist him in making those elastic pieces, that you know of?

A. I assisted him.

Q. 5. What did you do?

A. I did the stitching as Mr. Florsheim directed me; he basted two pieces of cloth together and I stitched tucks in groups in the cloth and left a margin at each end, so that it could be stitched in anything without touching the wire springs.

Q. 6. What did Mr. Florsheim do, if anything, with these pieces after you had stitched them, as you have stated?

A. His brother that is present and he inserted this coiled wire. His brother assisted him to insert this wire, and then Mr. Florsheim

got a pair of overalls and he basted it in the back of the overalls and I stitched them in.

275 Q. 7. Do you know whether the coiled wire of which you have spoken was inserted in the tube which you had stitched; and, if so, how it was inserted in the tubes, and whether there was a separate coiled wire for each tube, or did the wire run back and forth through all the tubes, making a continuous coiled wire? If you do know, please state.

(Question objected to as leading and suggestive.)

A. There were solid sticks of wire resembling a knitting needle, and Mr. Gus. Florsheim assisted in so far as when he crimped the wire. Mr. Gus. Florsheim pulled out the stick and Mr. Simon Florsheim inserted the wire. It was a continuous coiled wire.

Q. 8. Please examine this piece of elastic fabric marked "Florsheim Exhibit No. 1," and state whether it is like or unlike the piece which you assisted Mr. Florsheim in making, as above stated by you; and, if it is like it, state in what respect.

A. It is just like this piece; and this is the piece I stitched—it was just like this piece—in fact I know it was this piece.

Q. 9. When was it that you assisted Mr. Florsheim in making that piece of elastic fabric that you have just described, and where was it?

A. It was at his residence, 2503 Michigan avenue, and was in the month of February, 1879—in the early part of February.

Q. 10. How do you fix the time when you assisted Mr. Florsheim in making this elastic piece?

A. Because my father died in the early part of February, and I assisted him before he died.

Q. 11. Did you assist Mr. Florsheim at that time in making more than one piece like this "Florsheim Exhibit No. 1?"

A. At what time?

276–278 Q. 12. In the early part of February, 1879?

A. I assisted him, as I stated before, in making this piece for the overalls, and didn't assist him until the latter end of February again.

Q. 13. When, as near as you can recollect, did you assist him in making this piece marked "Florsheim Exhibit No. 1?"

A. I think that was in the early part of February.

Q. 14. Did you assist in making the piece that was sewed into the overalls at the same time?

A. Yes; about the same time, as near as I can remember.

Q. 15. What did you assist him in making in the latter part of February, 1879?

A. I assisted him in stitching three sections for a corset.

Q. 16. Did those sections also have springs; and, if so, what kind of springs?

A. They had this coiled wire—this continuous spring—and a margin at each side.

Q. 17. What was done, if anything, with those sections?

A. Mr. Florsheim basted one of them into the back and the other two under the arms over the hips, and I stitched them.

Q. 18. How long were these elastic sections as compared with the length of a corset?

A. They were the full length of the corset.

Q. 19. Do you know what was done with that corset? If so, state.

A. I do. After it was finished Mr. Florsheim took the corset down town. He afterwards brought it home and gave it to
279 me. I wore the corset for some time, and after the corset was soiled of course I cast it aside. I don't know what became of it.

Q. 20. Please examine this corset now shown you and state whether it is like or unlike the one that you sewed the elastic sections for in February, 1879; and if it is like it, state in what respect.

A. It is like this corset—the sections are; but the corset might have been a little longer or a little shorter; that I can't say; but the continuous wire was just the same—stitched in the way it is here.

(The corset last referred to by the witness is introduced as an exhibit, and the same is marked "Florsheim Exhibit No. 4, Geo. R. Cutler, notary public.")

Q. 21. Did you know of Mr. Florsheim making any other elastic sections or pieces of this kind about the latter part of February, 1879, or soon after? If so, state what he made, and when, as near as you can.

A. I do; in March Mr. Florsheim brought home another corset, and asked me to stitch two sections for him, and he cut out a piece under the arms and over the hips and basted in those sections, and I stitched them in.

Q. 22. Please examine this corset now shown you and state whether it is substantially like or unlike the corset which you assisted Mr. Florsheim in making in March, 1879; and if unlike it, state in what respect.

(Question objected to on account of the use of the word "substantially." The witness should be asked to state the correspondences and differences, as the office can judge for itself whether or not the articles referred to are substantially like or unlike.)

280 A. It is like the corset that I assisted Mr. Florsheim with. It might have been a little longer or a little shorter, but this is the way the two sections were put in.

(The corset last referred to is introduced as an exhibit, and the same is marked "Florsheim Exhibit No. 5, Geo. R. Cutler, notary public.")

Q. 23. Do you remember Mr. Florsheim making any other elastic sections or goring about that time? If so, state what.

A. I do. I remember of stitching a leather for him some time in March.

Q. 24. Do you know what that was for, and what he did with it?

A. I don't know what he did with it, but it was for gaiters—shoes—as far as I can remember; men's, I think.

Q. 25. How do you fix these dates as having been in March—some time in March, 1879?

A. Because I left Mr. Florsheim's house in March and went to my mother's. My mother broke up housekeeping at that time.

Q. 26. About what time in March did you leave Mr. Florsheim's house?

A. That I cannot tell. I don't remember just exactly the time in March, but I know it was in March.

Q. 27. How do you fix the dates of your assisting Mr. Florsheim in making the sections for the corset and the shoe goring from the fact that you left Mr. Florsheim's house some time in March, 1879?

A. It was done before I left Mr. Florsheim's house.

Q. 28. Have you lived in California ever since you went there in the fall of 1879?

A. I have.

281 Q. 29. And you came from there to Chicago at Mr. Florsheim's expense and request to testify in this corset case, did you not?

(Objected to as leading.)

A. I did.

Adjourned till 1.30 p. m.

Met, at 1.30, pursuant to adjournment.

Present: As before.

Cross-examination:

C. Q. 1. Mrs. Hochstaedter, will you please give the exact date of your father's death?

A. It was the 8th of February.

C. Q. 2. Where did he reside at the time of his death?

A. On Cottage Grove avenue.

C. Q. 3. Can you give the number?

A. I cannot; it was between 23d and 24th street, on Cottage Grove.

C. Q. 4. What was your father's name?

A. Leopold Friesleben.

C. Q. 5. Did he own the house in which he lived at the time of his death, or did he rent it?

A. He rented it.

C. Q. 6. Now, you have stated, madam, that your mother gave up housekeeping in March, 1879. Can you give the exact date when this occurred?

A. I stated that I left Mr. Florsheim's in March, and that my mother was getting ready to give up housekeeping, and I went home; the day I don't remember.

C. Q. 7. Can you give the date, or about the date, when your mother gave up housekeeping?

A. I cannot.

C. Q. 8. Can you give the month?

A. I can't give the month either, because we were some time breaking up.

C. Q. 9. Was it before the month of May?

A. It might have been; I don't know.

C. Q. 10. Was this before or after your marriage?

A. It was before I was married.

C. Q. 11. Was not the event of your mother's breaking up housekeeping quite as important a one to you as the event of your leaving Mr. Florsheim's house?

A. My mother's breaking up was the cause of my leaving Mr. Florsheim's house.

C. Q. 12. If you cannot give the date of your mother's breaking up how are you able to give so accurately the date of your leaving Mr. Florsheim's house, which, as you say, depended upon that breaking up?

A. I did not give the date; I only said the month was March.

C. Q. 13. And yet you cannot even give the month in which your mother broke up housekeeping; is that correct?

A. We were some time in breaking up, and so I can't remember the exact time.

C. Q. 14. Now, madam, could you have given the date of your leaving Mr. Florsheim's house if you had not had conversations with him upon the subject?

A. I had no conversation as to the time that I left his house.

C. Q. 15. Do you mean to say that you have had no conversation with him recently or no correspondence with him while you were in California in which the time when you left his house was mentioned or discussed?

A. I mean to say that Mr. Florsheim wrote to me asking
283 me if I remembered stitching for him different pieces or a number of pieces. I answered that I did remember distinctly that I stitched a number of pieces for him at different times, and since I came Mr. Florsheim has spoken to me about it, of course, and I told him that I remembered perfectly that I stitched for him a number of pieces.

C. Q. 16. Have you in your possession the letters or the letter which Mr. Florsheim wrote to you in regard to this matter?

A. I have not.

C. Q. 17. What has become of the letter or letters?

A. I don't know what became of the letters.

C. Q. 18. Do you know whether or not they have been destroyed?

A. I think they have, because when I left home I destroyed a great many letters, and I think those were among them.

C. Q. 19. Has not your memory been considerably refreshed by correspondence or conversations or both had with Mr. Florsheim as to the times when you assisted him in making these fabrics to which you have referred and the time when you left his house?

A. It has not been refreshed.

C. Q. 20. Then how is it that you cannot give the date of your

mother's giving up housekeeping or even the month in which that occurred?

A. As I said before, we were several months in breaking up, and I cannot tell the exact date.

C. Q. 21. Can you give the date when you went to live with Mr. Florsheim?

A. I cannot give it.

C. Q. 22. Well, the only date you can give is the date of your leaving. Is that correct?

284 A. No, sir; it is not. The date of my father's death I remember.

C. Q. 23. Was not the date of your going to Mr. Florsheim's quite as important a one in your life as the event of your leaving his house?

A. The event of my going to Mr. Florsheim's house was as important, but I don't remember the date.

C. Q. 24. You are the sister-in-law of Mr. Florsheim, are you not?

A. I am.

C. Q. 25. When did you help Mr. Florsheim to make the fabric, "Florsheim Exhibit No. 1?"

A. I assisted him in a number of pieces. He had me stitch a number of pieces for him in the early part of February, 1879, and this looks like one of the pieces that I stitched; it was a piece just like that.

C. Q. 26. About how many pieces do you mean when you say "he had you help him with a number of pieces?"

A. I don't just exactly know the number. I stitched a number until they were perfect—until Mr. Florsheim considered them perfect.

C. Q. 27. Could you say that you stitched as many as twenty pieces or more or less?

A. I couldn't say how many pieces.

C. Q. 28. Are you sure that you could recognize any one of the other pieces that were made at that time as positively as you can recognize this piece, "Florsheim Exhibit No. 1?"

A. Well, I know that I made some. I don't know that this is the exact piece; this looks like it. That's all the information I can give.

C. Q. 29. Have you ever seen this piece, "Florsheim Exhibit No. 1," from that day to this?

285 A. I have.

C. Q. 30. Where and when?

A. I don't just remember where, nor do I remember when.

C. Q. 31. Has it been since the occasion of your coming from California for this current visit?

A. I don't remember.

C. Q. 32. You cannot say, then, whether it was before or since the month of August, 1879. Is that what you mean?

A. I cannot.

C. Q. 33. When did you come to Chicago on your present visit?

A. It was the 14th of March, I think, that I arrived in Chicago.

C. Q. 34. And you cannot say whether it was since the 14th of March, 1882, or before the month of August, 1879, that you saw this fabric, "Florsheim's Exhibit No. 1," between the time when you made it and the present time. Is that so?

A. I cannot.

C. Q. 35. Were the elastic sections which were inserted in the corset which Mr. Florsheim presented to you and which you wore as well and as perfectly made as those shown in "Florsheim Exhibit No. 4?"

A. They might not have been as perfect, but they were with this non-elastic margin and the continuous wire, and I wore the corset.

C. Q. 36. Did you sew a piece of this fabric into a pair of overalls for Mr. Florsheim?

A. I did.

C. Q. 37. When was this?

A. In the early part of February.

286 C. Q. 38. Can you recollect the date when you cast aside the corset which Mr. Florsheim gave you?

A. I cannot. When it was soiled I cast it aside.

C. Q. 39. Can you recollect the date or about the date when he gave it to you?

A. I cannot remember the date.

MAGGIE HOCHSTADTER.

Subscribed and sworn to this 5th day of April, 1882, before me—

GEO. R. CUTLER,

[NOTARIAL SEAL.] *Notary Public, Cook Co., Ills.*

The next witness, AUGUSTUS FLORSHEIM, being first duly sworn, deposes as follows:

Q. 1. What is your name, age, residence, and occupation?

A. Name, Augustus Florsheim; age, 43; merchant; 189 25th street, Chicago.

Q. 2. How long have you been in Chicago?

A. Since 1868.

Q. 3. Do you know Simon Florsheim, and are you a relative of his; if so, how are you related?

A. I know him; am related to him—brother of his.

Q. 4. Did you know of Simon Florsheim making any experiments or [on] pieces of elastic fabric; and, if so, when and where was it?

A. I know of him making experiments in the early part of February, 1879, at his house.

Q. 5. Who assisted him, if any one?

A. Mrs. Hochstaedter and myself.

Q. 6. What did you do in assisting Simon Florsheim?

287 A. I assisted him when he put in the springs into a piece for overalls.

Q. 7. How was that piece made?

A. The piece was made with continuous coiled spring and non-elastic margin.

Q. 8. How was the continuous coiled-wire spring held in place?

A. The piece was stitched, pins inserted, crimped, and, pulling out the pins, the coiled spring was pulled through the tubes.

Q. 9. Did Mr. Simon Florsheim make more than one piece at that time, that you know of?

A. At the time I was at his house I assisted him in making one piece; but I seen a good many other pieces laying about.

Q. 10. Please look at this piece now shown you, marked "Florsheim's Exhibit No. 1, Geo. R. Cutler, notary public," and state whether that is like or unlike the piece that you assisted your brother, Simon Florsheim, to make at his house in the early part of February, 1879; and, if it is unlike it, in what respect?

(Question objected to because the witness has not been required to give as full a description as he can of the device before being called upon to identify the exhibit.)

A. Yes, sir; it looks like it. It is not unlike it.

Q. 11. Did you understand from Mr. Simon Florsheim at that time anything in reference to his having invented something new, or that he was making elastic fabric different from what had been made before?

A. Yes, sir.

288 Q. 12. Did you see the piece of elastic fabric with continuous coiled wire spring and non-elastic margin after it was sewed into the overalls?

A. I did, sir.

Q. 13. When and where did you see the overalls with a piece of that kind in them?

A. I saw it right there. After assisting my brother putting the springs in the piece Mrs. Hochstaedter sewed it in the overalls.

Q. 14. Did you know of Mr. Simon Florsheim making any other pieces of elastic fabric after those first pieces that were made, the fore part of February, 1879, which he used for any other purpose?

A. Yes, sir; he presented a corset to my wife with the coiled-wire spring in it. I also bought pieces for shoe goring of him.

Q. 15. In what way were the pieces that had the coiled-wire spring in them inserted in the corset which Mr. Simon Florsheim presented to your wife?

A. They were inserted in both sides from under the arms over the hips.

Q. 16. In what way were the coiled-wire springs inserted in these elastic sections that extended from under the arms over the hips in that corset?

A. It was one continuous spring, sewed fast on each end.

Q. 17. How far did the spring extend?

A. It extended clear down the whole depth of the corset, from under the arm over the hip.

Q. 18. Did it extend straight up and down? If not, what was the direction of this continuous coiled-wire spring in this elastic section of the corset?

A. It did not extend up and down. It run along for-
289 ward and back, continuous in line, to the end of the piece of the fabric.

Q. 19. How was the elastic section secured in this corset?

A. The non-elastic margin was sewed into the corset.

Q. 20. When, as near as you can state, did Mr. Simon Florsheim present that corset to your wife?

A. It was some time in March, 1879, that he sent it to her.

Q. 21. Please look at this corset now shown you, marked "Florsheim Exhibit No. 5, Geo. R. Cutler, notary public," and state whether it is like or unlike the corset that Mr. Simon Florsheim presented to your wife in March, 1879; and, if it is unlike it, state in what respect.

A. This is made the same as that was made; and this don't seem to be unlike it, unless it's a better corset than that was.

Q. 22. What became of that corset, if you know?

A. I don't know what became of it.

Q. 23. Did your wife wear it?

A. Yes, sir; she wore it until the springs pulled out.

Q. 24. Did you understand from Mr. Simon Florsheim at that time anything in reference to its being a new kind of corset which he had invented and made; if so, what did he say about it?

A. Yes, sir; I did. He referred in regard to the improvement he made in the corset with the elastic section in it.

Q. 25. You have stated that you knew something about his making an elastic goring for shoes or gaiters. State what you know about that.

290 A. He delivered me some springs to make for shoes, which I had made up and sold.

Q. 26. Well, state what kind he first delivered to you and what was done with them.

A. The first he delivered to me he did not claim that he had made. He brought four pieces to me in the store and then asked me to have them put in a pair of shoes for him. I had them sewed into a pair of shoes, but the machine needle had cut the springs, and I afterwards had the pieces—after the wire being pulled out—I had the pieces taken out and the rubber gorings put in the shoes.

Q. 27. Did those four pieces which he first brought to you have a continuous wire spring and a non-elastic margin; if not, how were they made?

A. No, sir; they did not have it. Each spring running across the fabric was sewed on both ends.

Q. 28. Do you mean each spring run across the fabric only once?

(Question objected to as leading.)

A. Yes, sir.

Q. 29. Was there any margin between the ends of the springs and the edges of the fabric; if so, what kind of a margin was it?

A. There was no margin. Each spring run the whole length of the fabric and was sewed on the ends.

Q. 30. Did Mr. Gustav Schilling see those shoes after these gores

were sewed in, that you know of; and, if so, what did he say about them, if you know?

A. Yes, sir; he seen them. I showed them to him and showed him how the machine needle had cut the springs, and he answered that was the only way he knew how to make them; he did not know of any other way.

291 Q. 31. Did Mr. Simon Florsheim afterwards bring you any other kind of shoe goring; if so, what kind, what did he say about it at the time, and what was done with those, if anything?

A. He brought me some with a continuous wire spring and non-elastic margin, and I had them sewed into shoes and sold them. He said he made them—I should try them—have them made up into shoes.

Q. 32. About when, as near as you can state, did he bring you these shoe gorings made with continuous springs and non-elastic margins which he stated he had made and requested you to put them into shoes and try them?

A. I think it was some time in March, 1879.

Q. 33. Did Mr. Gustav Schilling, that you know of, see a pair of shoes made with the goring which Mr. Simon Florsheim brought you, which he said he had made, with continuous springs and non-elastic margin; and, if he did, did he say anything about that kind of goring for shoes being Mr. Florsheim's invention; if so, what did he say about it?

(Question objected to as leading.)

A. Yes, sir; I showed him a pair of shoes with the continuous wire spring and non-elastic margin gorings in, and he remarked that "it was a good idea of your brother Simon's; he has got a good head on him, anyway."

Q. 34. Did you after that buy any shoe goring with continuous spring and non-elastic margin; and, if you did, of whom did you purchase?

A. I bought some after that of Simon Florsheim.

Q. 35. Did you make any arrangement at any time with any one with reference to the manufacture of this style of shoe goring; if so, with whom, and what was the arrangement, as near as you can recollect?

292 A. I did, sir, make an arrangement with Simon Florsheim and Gustav Schilling. The arrangement was to manufacture the shoe goring, for me to furnish the necessary funds and capital, Mr. Simon Florsheim to attend to and assist me in managing the business, and Mr. Gustav Schilling to oversee the working part of the business, and Mr. Gustav Schilling to receive twenty dollars a week, and if the business proved to be successful the twenty dollars a week that he was to receive was to be deducted from his share of the profits.

Q. 36. Did you pay him twenty dollars per week for any number of weeks; and, if so, how many?

A. I did pay him twenty dollars a week, I think, for four weeks.

Q. 37. Was the arrangement that you had with Mr. Schilling then discontinued; and, if so, why, if you know?

A. Yes, sir; it was discontinued, because Mr. Schilling didn't fulfill his part of the agreement.

Q. 38. Did Mr. Schilling at that time say in your presence anything about discontinuing the arrangement with you or having applied for a patent himself on a corset or anything about who invented the elastic fabric with a continuous coiled-wire spring and non-elastic margin or its value? If he did in your presence state what it was.

A. One day Mr. Schilling came late in the morning, and Simon Florsheim and I, while being in the workshop—Mr. Schilling came, and we reprimanded him for not keeping his part of the agreement, neglecting his duty. He remarked that he had enough of it, anyway; that he was going to quit, anyway; that he had applied for a patent on a corset. Mr. Simon Florsheim remarked, "You
293 can apply for what you please as long as you don't apply for my invention—the continuous wire spring and non-elastic margin." He said that wasn't worth anything; he wouldn't give anything for it; that he had applied for a piece to be laced in the back of the corset.

Q. 39. Do you remember about when this was?

A. It was some time in November, 1879.

Q. 40. Have you any interest in Mr. Simon Florsheim's patents which constitute the subject-matter of this interference or in his business pertaining to the manufacture of corsets under his patents?

A. No, sir.

Adjourned to ten a. m. of April 6, 1882.

APRIL 6, 1882—ten a. m.

Met pursuant to adjournment.

Present: As before.

Cross-examination:

C. Q. 1. When was it, Mr. Florsheim, that you assisted your brother Simon in making the elastic fabrics that you have referred to?

A. It was in the early part of February, 1879.

C. Q. 2. Do you fix that date by your own positive knowledge or by conversations which you have had with your brother since the beginning of this controversy?

A. I fix that time by my own positive knowledge.

C. Q. 3. What contemporaneous circumstances enabled you to fasten that date in your mind?

A. Because I remember that it was before the death of my brother's father-in-law.

C. Q. 4. Was there any connection between the death of your brother's father-in-law and the making of these original elastic fabrics?

294 A. I don't know that that had any connection with the manufacture of the elastic fabrics.

C. Q. 5. Then what is it that makes you associate the two incidents?

A. When I was at his house assisting him I remember that there was a conversation about his being sick.

C. Q. 6. Were you not frequently at his house when you did not assist him?

A. Yes, sir.

C. Q. 7. Do you remember having any conversations concerning the sickness of his father-in-law at those times?

A. No, sir.

C. Q. 8. Might you have had conversations with him on that subject at those times and not remember it?

A. No, sir.

C. Q. 9. You are able to swear, then, that out of the numerous visits that you made to your brother's house at about that time it was only on the occasion of this particular visit that the illness of your brother's father-in-law was referred to. Is that so?

A. Yes, sir.

C. Q. 10. When was it that Mr. Simon Florsheim presented to your wife the corset concerning which you have testified?

A. It was in the month of March, 1879.

C. Q. 11. Do you fix that date by your own personal knowledge and recollection or by means of conversations which you have had with your brother since the beginning of this controversy?

A. I fix that time by my own personal knowledge and not by means of conversations with my brother.

C. Q. 12. Was the presenting of a corset to your wife an
295 event of such moment that, although it occurred several years ago, the very month in which it was done is so firmly fastened in your memory without the aid of surrounding events that you can state that month positively upon solemn oath?

A. I can state that month by solemn oath, because I remember that I was boarding at the Clifton House at the time with my family, and he presented the corset to her at the Clifton House during a visit to my rooms at the Clifton House.

C. Q. 13. When did you go to board at the Clifton House and when did you leave there?

A. I went to board at the Clifton House in 1878—in the spring of 1878—and left the Clifton House in the month of March, 1879.

C. Q. 14. How was the corset which was presented to your wife made, so far as the elastic gores are concerned?

A. It had pieces of elastic gores, one on each side of the corset, from under the arms over the hips the full depth of the corset.

C. Q. 15. How were those elastic gores made?

A. They had a continuous spring from top to bottom with non-elastic margin.

C. Q. 16. How do you know that the spring was continuous?

A. Because I remember that it was continuous.

C. Q. 17. Was it not covered up by the cloth?

A. Yes, sir; it was.

C. Q. 18. Then how do you know that it was continuous?

A. Because I remember that the spring pulled out, and my
296 wife took the pieces out of the corset, and through handling it I saw plainly that it was one spring in each fabric.

C. Q. 19. Then you did not know it was a continuous spring until the corset pulled apart; is that the case?

A. I knew it before then, that it had one continuous spring in each fabric.

C. Q. 20. In what month was it that the corset pulled apart?

A. I saw it early in the month of May, that the spring was loose?

C. Q. 21. How do you fix that date?

A. Because my wife returned from Cincinnati at that time and showed it to me.

C. Q. 22. When did you see the elastic gore that was put into a pair of overalls?

A. Early in February, 1879.

C. Q. 23. What was the color of the overalls?

A. It was a dark color; I think it was brown or drab—some such shade.

C. Q. 24. What was the color of the cloth which formed part of the elastic gore?

A. It was a similar color.

C. Q. 25. Were the legs of those overalls complete or were they cut off?

A. I don't remember as to that.

C. Q. 26. Did you take the overalls in your hand?

A. I don't remember whether I did or not.

C. Q. 27. Did you handle the elastic gore that was in them?

A. I handled it before it was in.

C. Q. 28. Did you see it sewed in?

297 A. Yes, sir; I seen Simon Florsheim, after I assisted him in making that piece, hand it to Mrs. Hochstaedter to sew into the overalls.

C. Q. 29. Did you see her sew it into the overalls?

A. Yes, sir; I seen her sew it.

C. Q. 30. What date was this?

A. It was in the early part of February, 1879.

C. Q. 31. Was it the same day on which you assisted your brother to make the fabric "Florsheim Exhibit No. 1?"

A. It was at the same time that I assisted him in making a piece similar to this.

C. Q. 32. Then the only time you helped him at all was on this particular day. Is that correct?

A. It was the only time I assisted him.

C. Q. 33. Was the spring that was put into the elastic gore with inelastic margins for the overalls put in groups?

A. I think it was.

C. Q. 34. Did the spring extend down the side from group to group?

A. It did.

C. Q. 35. You mean it did if the spring was in groups, but you are not sure that that was the case. Is that what you say?

A. I am sure, because it was only one spring put in the fabric and margin enough of cloth left to sew into the overall.

C. Q. 36. Was the spring that was put into each section of the corset that was presented to your wife arranged in transverse groups?

A. Yes, sir.

C. Q. 37. Can you swear that the spring extended down the side of the section from group to group?

A. Yes, sir; I can.

298 C. Q. 38. Do your books show the payments which were made Mr. Schilling by your firm when, as you say, he was employed by your firm at twenty dollars a week?

A. I have a memorandum book that shows the payments Mr. Schilling received from me, and he was not employed by our firm at twenty dollars a week.

C. Q. 39. By whom was he employed?

A. Mr. Schilling, Mr. Simon Florsheim, and myself made an agreement to commence manufacturing shoe gorings; for me to furnish the necessary funds to manufacture, and Mr. Schilling to receive twenty dollars a week, and in case the undertaking was successful this twenty dollars a week were to be deducted from his share of the profit.

C. Q. 40. Have you in your possession a copy of that agreement?

A. I have not.

C. Q. 41. Do you know who has?

A. I do not.

C. Q. 42. Did you ever have a copy?

A. We had copies.

C. Q. 43. Whom do you mean by "we?"

A. Mr. Schilling, Simon Florsheim, and myself.

C. Q. 44. What became of the copy which you had?

A. They were all three in the workshop where we worked—all three copies.

C. Q. 45. When did you last see any one of the copies?

A. I haven't seen them since.

C. Q. 46. Since what date?

A. I can't give any date.

C. Q. 47. Can you give the year?

A. I can.

299 C. Q. 48. What year was it?

A. It was in the year 1879.

C. Q. 49. Please give as nearly as you can the exact language used by your brother when he told you that he had made an improvement in elastic gores for gaiters, and all the conversation on that subject that took place between you.

A. He brought a set of goring with the continuous wire spring and non-elastic margin, and told me to have them made up into shoes.

C. Q. 50. Is that all the answer you can give to the question?

A. It is all the answer.

C. Q. 51. Was this before or after you had helped him at his house with the elastic goring that was put into the overalls?

A. The set of gorings with continuous wire spring and non elastic margin he gave me after I assisted him in the house, and one set that did not have the continuous wire spring and non-elastic margin he had me put in a pair shoes for him before I assisted him at his house.

C. Q. 52. How long after you assisted him at his house was it that he brought you the shoe gorings having the continuous spring and inelastic margins?

A. He brought me the gorings with continuous spring and non-elastic margin some time in March, 1879.

C. Q. 53. When was it that Augustus Florsheim, Henry Florsheim, Philip Florsheim, and Simon Florsheim established a factory for the manufacture of this elastic fabric?

A. I don't understand the question. What elastic fabric?

300 We four did not start a factory to manufacture fabrics. Mr. Schilling, Simon Florsheim, and myself made an agreement to manufacture shoe gorings some time in October, 1879.

C. Q. 54. Did not you and your brothers, Henry, Philip, and Simon, in the month of October, 1879, in partnership, establish a factory for the manufacture of the elastic fabric with continuous spring and non-elastic margin, and together manufacture and sell such fabric in large quantities?

A. As I have stated, Simon Florsheim, Mr. Schilling, and myself manufactured—made an agreement to manufacture—shoe gorings, and sold the fabric.

C. Q. 55. Did you sell it in large quantities?

A. Not very large quantities.

C. Q. 56. Your brother Simon, in his preliminary statement made under oath in this interference, uses the following language: "And that in the month of October, 1879, in partnership with his brothers, Augustus, Henry, and Philip Florsheim, he established a factory for the manufacture of the said fabric, and manufactured and sold the same in large quantities." Is that statement true or not?

A. Henry and Philip Florsheim and myself are in partnership under the firm name "Florsheim Brothers;" and of course it was understood between us that if this manufacturing shoe gorings, of which I was to receive one-third share of the profits of said undertaking, they, of course, were to share my part of the profit, being partners of mine, of course I represented personally. Of course Mr. Simon Florsheim knew of all this.

C. Q. 57. Did the shoe gorings having the continuous springs and inelastic margins which Mr. Simon Florsheim first brought

301 to you appear to have been crimped by machine or by hand, or did he say anything to you as to how they had been crimped?

A. I think he told me that they had been crimped by machine, though I am not positive.

C. Q. 58. Did he tell you what kind of a machine he had used?

A. No, sir; he did not. I will not say for positive that he told

me they had been crimped by a machine. I rather think he told me they had been crimped by hand.

AUGUSTUS FLORSHEIM.

Subscribed and sworn to before me this 6th day of April, 1882.

GEO. R. CUTLER,

[NOTARIAL SEAL.] *Notary Public, Cook Co., Ills.*

Adjourned to 2 p. m. Saturday.

Met pursuant to adjournment.
Present: As before.

The next witness, FREDERICK EGGERT, being first duly sworn, testifies as follows:

Q. 1. What is your name, age, residence, and occupation?
A. I am a salesman, boots and shoes; 473 State St., Chicago, I live; age, 35; name, Frederick Eggert.
Q. 2. Were you ever in the employ of Florsheim Brothers?
A. Yes, sir.
Q. 3. How long were you in their employ, and when?
A. I have been for the last twelve years.
Q. 4. What were you doing in their employ in 1879?
A. I was salesman—selling shoes for them.
Q. 5. Did you know Simon Florsheim at that time?
A. Yes, sir; I did.
302 Q. 6. Did you know of his bringing to the store of Florsheim Brothers any pieces of any kind to have sewed into shoes; if so, what kind of pieces were they?
A. They were goring; it was leather to sew into shoes.
Q. 7. How were these gorings made, if you recollect?
A. They were made with wire spring between.
Q. 8. Were there any shoes made with those gorings in them?
A. Yes, sir; there was.
Q. 9. What was done with those shoes, if you know?
A. Those shoes—the goring was taken out and rubber put in.
Q. 10. Why was the goring taken out, if you know?
A. Because the machine cut the spring; it was no good; the machine cut the wire.
Q. 11. Did you know of Mr. Gustav Schilling seeing those shoes; and, if so, what did he say about them, if anything?
A. Yes, sir; he saw them. He said that was about the only way he knew how to fix them or how to make the goring.
Q. 12. Did you afterwards see any other gorings there at the store of Florsheim Brothers; and, if so, who brought them there?
A. Yes, sir; I did. Mr. Simon Florsheim brought some in with the leather extending over the ends so as the machine wouldn't cut the wire.
Q. 13. Were the springs different from the springs in the other gores which he first brought in?
A. Do you mean in the material or the make-up?

Q. 14. I mean in the make-up.

303 A. Yes, sir. The springs on the first ones, they were cut off at the ends, and the other ones they were continuous—they were not cut off.

Q. 15. What was done with these gores which had the continuous spring and the margins for sewing them in by, which Mr. Simon Florsheim brought to the store of Florsheim Brothers, if you know?

A. They were sewed into shoes, and they were sold in the store.

Q. 16. When was it that he brought these gores to the store?

A. I think it was along in February.

Q. 17. When did he bring the gores having the continuous spring and the non-elastic margin, with which the second pair of shoes were made?

A. I think it was in February, 1879.

Q. 18. Did you know of Gustav Schilling seeing that second pair of shoes with gores having the continuous springs and non-elastic margins? And, if so, what did he say about them, if anything?

A. Yes, sir; I did. He said that that was a better way than the other way, and that it worked that way.

Q. 19. Did he say whose idea it was to have the gores that way, or who got it up, or anything of that kind; if so, what did he say?

A. He said it was a good idea of Mr. Florsheim's; that he didn't know of any way to make it different; that it was a good idea of his.

Q. 20. Did you know of either of the Florsheim brothers paying Mr. Schilling any money; if so, how much and how many times, and about when was it, and what was it for, if you know?

304 A. Yes, sir; he did pay him; I think it was twenty dollars. There were several times that I seen him. Twenty dollars each time. For what I don't know.

Q. Which Florsheim was it?

A. Mr. A. Florsheim.

Cross-examination:

C. Q. 1. How many salesmen were there in Florsheim's store beside yourself?

A. Two.

C. Q. 2. What were their names?

A. Myself and a young man by the name of Heimerdinger.

C. Q. 3. Are you still engaged with Florsheim Brothers?

A. Yes, sir; I am.

C. Q. 4. Is Mr. Heimerdinger still engaged there?

A. Yes, sir.

C. Q. 5. Was he present, as well as yourself, when these various elastic gorings were brought to the store by Mr. Simon Florsheim?

A. The young man came right afterwards—I made a mistake; he wasn't there then.

C. Q. 6. In what month and what year did he come there?

A. I don't recollect the month. I know at that time he wasn't there. I made a mistake about that.

C. Q. 7. In what year did he come to work there?

A. He come there in 1879.

C. Q. 8. Did he come to work there in the spring or in the fall?

A. I think in the fall.

C. Q. 9. Didn't you say that he came to work there right after the time when Mr. Florsheim first brought those elastic gorings?

305 A. Yes, sir; I didn't understand the question.

C. Q. 10. What did you understand me to say if you did not understand the question?

A. Well, I thought he was there, but I remember now he came later. He was there in the fall.

C. Q. 11. Now, might it not have been in the fall and not in the spring, then, that Mr. Florsheim brought those elastic gorings to the store, or might it not have been along toward the fall?

A. The goring—I remember it was along early in February that my child died, and that was about when it happened.

C. Q. 12. What was there connecting these two circumstances—the death of your child and the bringing of some pieces of spring fabric to the store—that associates the two incidents in your mind?

A. Because I seen Mr. Florsheim bring them in. I remember it was about the time that he brought the fabric in.

C. Q. 13. Can you remember any particular pair of boots or shoes or rubbers that you sold at about that time, which are also associated in your mind with the death of your child?

A. Yes, sir; that was the time when they brought that new one; heard them speaking about it and seen it.

C. Q. 14. Question repeated.

A. Yes, sir; there was one pair sold where the springs were taken out and goring put in.

C. Q. 15. On what date was this pair sold?

A. The date—I could not say exactly. It was the beginning of February. It was about that time, I know, they were sold.

306 C. Q. 16. On what day did your child die?

A. February 8th, 1879.

C. Q. 17. Now, can you remember particularly any person that you sold any pair of boots or shoes to about this time?

A. I could not, sir.

C. Q. 18. Then the death of your child does not help you to remember anything about the business there, except the one circumstance of the bringing of these elastic gores by Mr. Florsheim. Is that so?

A. Well, just at that time—I remember it—they were speaking about the gores, and brought them in. I remember it was just about that time.

C. Q. 19. Well, would you have been able to give the time so accurately if your memory had not been refreshed by talking the matter over with Mr. Florsheim lately?

A. Mr. Florsheim asked me if I remembered the circumstances, and I told him I did.

C. Q. 20. When did he ask you this?

A. Some time ago. I could not state the day.

C. Q. 21. Did he tell you or give you to understand that he wanted to prove that it occurred about February, 1879?

A. No, sir.

C. Q. 22. What did he say?

A. Well, I heard him speaking about it, I remember, at the time they first made that goring.

C. Q. 23. I mean, what did Mr. Simon Florsheim say to you at the time he spoke to you about testifying in this case and what did you say to him?

A. I told him I remembered the circumstances when he
307 brought the goring in—that it was just about the time my child died. I took some interest in the goring because I thought it was good.

C. Q. 24. Before you told him that, did he not say anything to you about wanting to show that it happened in the early part of 1879?

A. No, sir.

C. Q. 25. Now, Mr. Eggert, do you positively swear that these gorings with a continuous spring and inelastic margin were brought to the store by Mr. Simon Florsheim in the month of February, 1879?

A. Yes, sir.

C. Q. 26. And you swear that it could not possibly have been as late as the month of March, do you?

A. Yes, sir.

C. Q. 27. Were you the only salesman in the store at that time?

A. Yes, sir; I was. I made a mistake when I said there was two of us, because the young man came later.

C. Q. 28. Where was Mr. Gustav Schilling at the time he said that this way of Mr. Simon Florsheim's of making the elastic gore was better than the other way, and where were you when he said it, and who else were present?

A. I was in the shoe store—85 Madison street. I couldn't tell the names who were present. I think Mr. Florsheim was present.

C. Q. 29. Were the coiled-wire springs in the elastic gores that Mr. Simon Florsheim brought to the store arranged in groups as they are in the corset "Florsheim Exhibit No. 4?"

A. Yes, sir; they were similar to that.

C. Q. 30. Those were the ones that had the continuous spring and non-elastic margins, were they?

308 A. Yes, sir; they were.

C. Q. 31. Did you hear Mr. Simon Florsheim say anything at that time as to whether he had crimped the material into which the spring was inserted by means of a machine or by hand?

A. No, sir; that I don't remember. That I don't know anything about—how they were made.

FREDERICK EGGERT.

Subscribed and sworn to before me this 6th day of April, 1882.

GEO. R. CUTLER,

[NOTARIAL SEAL.] *Notary Public, Cook Co., Ills.*

The next witness, Mr. WM. H. LOTZ, being first duly sworn, testifies as follows:

Q. 1. What is your name, age, residence, and occupation?

A. My name is William H. Lotz; residence, 147 Schiller street, Chicago; occupation, mechanical engineer and solicitor of patents; age, 43 years.

Q. 2. Were you the attorney of Gustav Schilling and Simon Florsheim in obtaining letters patent No. 218,321, granted to Gustav Schilling for gloves, one-half interest assigned to Mr. Florsheim; and also in obtaining letters patent No. 214,712, elastic gore for gaiters; also letters patent 224,559, for pantaloon garment, issued to Schilling and Florsheim as joint inventors; also letters patent 222,082, for corsets, granted to Schilling and Florsheim as joint inventors; and, if you were, will you state whether you conversed with them at the time of applying for these patents, or any of them, in reference to their being sole or joint inventors?

309 A. I have been attorney for obtaining the patents above specified. I do not remember any particular conversation, only that much, that where two come in and claim to be joint inventors I always enquire whether both assisted in inventing the article, and explain to them that the patent is legally null and void when obtained by misrepresentation as to the inventorship.

Q. 3. Have you any recollection in reference to there being any objection to the kind of elastic fabric which was shown in the glove patent and the gaiter patent or any difficulty experienced in its use, and whether either Mr. Florsheim or Mr. Schilling claimed to have made any improvement in its construction which obviated the difficulty or objection? And, if so, state what you understood the improvement to be and what they said about it, if anything.

A. I remember that Mr. Florsheim came to my office several times while he was trying to introduce the gore for gaiters, and that he told me the great objection made to it by shoemakers was that in stitching the gores to the shoes or gaiters the needle was very apt to cut the wire—the springs—and that on that account the gores would not be practicable unless some device could be invented that would overcome that difficulty. I remember that Mr. Florsheim stated to me that he had, by experimenting, found out how to make such gores that would have a margin. I also remember that Mr. Florsheim and Mr. Schilling came to my office together, and, talking about the subject, that Mr. Florsheim said that without this improvement the whole device would not be practicable, and that Mr. Schilling acknowledged by stating that it was a very good idea of Mr. Florsheim's. I farther remember that Mr. Florsheim,

310 coming in again to my office and telling me about some little difficulties he had with Mr. Schilling at the time—that he was glad Mr. Schilling had acknowledged in my presence the improvement referred to being Mr. Florsheim's invention; and Mr. Florsheim requested me to remember that fact.

Q. 4. Do you remember about when it was that Mr. Schilling acknowledged that this improvement was a good idea of Mr. Flor-

sheim's, as compared with the dates of these patents above referred to or the dates of making the application for them?

A. I don't remember the exact date, but I think it must have been about the time application was made for the patent for pantaloons. That was March, 1879.

Cross-examination:

C. Q. 1. Was anything said at that time, that you can remember, about Mr. Florsheim's being the sole inventor of any other feature of the device than the margins?

A. The margins and the continuous spring, I remember.

C. Q. 2. What was it that Mr. Schilling acknowledged Mr. Florsheim to be the inventor of?

A. I think both combined—the margin and the continuous spring.

C. Q. 3. Are you positive upon that point?

A. I think I am—quite.

C. Q. 4. Did not the firm of Lotz & Dyer, of which you are a member, obtain for Mr. Florsheim, subsequently, letters patent No. 238,100, which is in controversy in this interference?

A. Yes, sir.

311 C. Q. 5. Did you personally have any conversations with Mr. Florsheim about the time that application for that patent was made?

A. I have no doubt I had a good many conversations with Mr. Florsheim at the time, although my partner attended to the application more than I did at that time.

C. Q. 6. Did Mr. Florsheim say anything then about being the sole inventor, to the exclusion of Mr. Schilling, of the features claimed in that patent?

A. Of course, he must have said so, and he made oath to it.

C. Q. 7. Do you particularly remember that subject being discussed by yourself with Mr. Florsheim about the time this last application was made?

A. I don't remember anything about it.

C. Q. 8. Might it not have been at the time of making this last application, and not at the time of making the overall application, that Mr. Florsheim claimed to you to be the exclusive inventor of the continuous spring, together with the non-elastic margins?

A. I remember exactly that it was at about the time of making the application for the pantaloons that the continuous spring was mentioned by Mr. Florsheim, and that when Mr. Florsheim made the application for patent No. 238,101 his second improvement was then to get a fabric woven in one piece that contained the tubes for inserting the springs, instead, as before, the puckered tubes were formed by sewing two pieces of fabric together, one on top of the other.

C. Q. 9. Do you remember advising Mr. Florsheim and Mr. Schilling to look among the English patent records in the Chicago public library to ascertain if there might not be something bearing upon the subject upon which they were inventing?

312 A. I don't remember, but I hardly would unless some English patent had been cited by the Patent Office as a reference in the case, when I might have given the inventors the year and number, that they could look up the patent for their own satisfaction.

C. Q. 10. Did you never advise them to go to the public library and examine the British abridgements on the subject of wearing apparel?

A. I am sure I never did, because it would be the first case that I would have done so. If I told Messrs. Florsheim and Schilling to go to the public library and look up any books it must have been on some English patent reference in one of their cases.

C. Q. 11. Do you remember ever hearing them, or either of them, say that they had been to the public library and had found there anything in the matter of spring fabrics which attracted their attention?

A. I do not remember.

C. Q. 12. Do you remember Mr. Schilling's calling upon you some time during the winter just passed and asking you whether you could direct him again to a certain English patent book to which you had directed him or Mr. Florsheim on a former occasion?

A. I recollect. I told Mr. Schilling then that I did not remember anything about it.

C. Q. 13. Do you remember when this was?

A. Perhaps two months ago, as far as I can recollect.

C. Q. 14. Did Mr. Schilling tell you what was in the book that he wanted to find?

A. I don't think he specified. If I recollect, I had an office full of clients at the time, and actually didn't have time to ask for many explanations.

313 C. Q. 15. Did he not tell you, in substance, that he was trying to find an English patent which he had formerly found, acting under your direction, and which described an elastic fabric with a continuous spring in puckered tubes and with an inelastic margin?

A. I remember that he was not specific in his explanation as to what he wanted to find, but simply spoke of an English book—if I remembered of an English book.

WM. H. LOTZ.

Subscribed and sworn to this 6th day of April, 1882, before me—
[SEAL.] GEO. R. CUTLER,
Notary Public, Cook Co., Ills.

Adjourned to ten a. m. of April 7, 1882.

APRIL 7, 1882—ten a. m.

Met pursuant to adjournment.

Present: As before.

The next witness, JOSEPH S. BEAR, being first duly sworn, testified as follows:

Q. 1. What is your name, age, residence, and occupation?

A. Joseph S. Baer; 29 years; employed with Chas. Gossage & Co.; Sherman House, Chicago.

Q. 2. How long have you been in the employ of Chas. Gossage & Co., in what capacity, and what is the business of Chas. Gossage & Co.?

A. Between ten and eleven years; as manager and buyer of the notion department. The business of the house is dry goods.

Q. 3. Do you know Simon Florsheim, one of the partners to this interference; and, if so, did he ever exhibit a corset to you
314 and say anything about its being new or different from ordinary corsets or who had made it or got it up? If so, state what he said about it and when it was.

A. I am personally acquainted with Mr. Florsheim. He did show me a corset a little different from the usual style. He called my attention to the elasticity of the corset; he showed me the peculiarity of the wire in the corset; he informed me that it was his patent. It was three years ago last March—1879.

Q. 4. What was the novel feature, if you recollect, that Mr. Florsheim claimed at that time for his corset?

A. It was an absence of the lace part, which is usually customary in corsets. It had a piece in the back in which was enclosed a wire, and also a similar piece on each side, extending from underneath the arms over the hips.

Q. 5. Did he explain to you anything in reference to how the wire extended in those pieces?

A. He did.

Q. 6. What did he claim for it?

A. I asked what the material of the corset consisted of; to which he answered, It was a twisted coiled wire; and I observed that it was one continuous piece from the beginning to the end—snake-like in form. I also held it toward the light and found it just as he represented it to be.

Q. 7. Please look at this corset now shown you, marked "Florsheim Exhibit No. 4, George R. Cutler, notary public," and state whether it is like or unlike the corset which Mr. Simon Florsheim showed to you some time in March, 1879; and if it is unlike it state in what respect.

A. To my best knowledge and ability, I believe it to be the same corset in style—it is the same corset in style.

315 Q. 8. Did you refer Mr. Florsheim to any one for information in reference to that corset? If so, to whom?

A. Mr. Florsheim, I believe, supposed I had the charge of buying of these corsets; who, after showing it to me and commenting on its

advantages over other corsets, was introduced by me to the manager of the lace department, to whom he afterwards showed it.

Cross-examination:

C. Q. 1. How do you know that he afterwards showed it to the manager of the lace department?

A. I saw him exhibit the corset.

C. Q. 2. How do you fix the time when this corset was shown you as being the month of March, 1879?

A. It was shortly after I became acquainted with Mr. Florsheim that he came to the store and showed me the corset. At that time we had our corset department down-stairs, or the ground floor, and were making some alterations prior to our removal of that department, as well as some others, upstairs. In the latter part of March of that same year I left for New York, the time of my absence being noted on the books of the house, and upon my return from New York, which was very near the twentieth of April, the department had been moved upstairs, and I have no recollection of seeing Mr. Florsheim for nearly six months after that; in fact, it may be a year.

C. Q. 3. Was the coiled spring in the corset that he showed you arranged in groups, as shown in the corset "Florsheim Exhibit No. 4," and were those groups connected together, as in that exhibit, by the spring passing down from one to the other along the side of the section?

316 A. The wire was continuous, which formed at intervals a group.

JOSEPH S. BAER.

Subscribed and sworn to before me this 7th day of April, 1882.

[SEAL.] GEO. R. CUTLER,
Notary Public, Cook Co., Ill.

(It is stipulated by counsel for the respective parties to this interference that the foregoing deposition of Joseph S. Baer, although taken subsequently to April 6th, 1882, the time set for closing the testimony in behalf of Simon Florsheim, shall have the same force and effect as if duly taken within the time allotted.)

The next witness, ULRICH YOUNG, being first duly sworn, testifies as follows:

Q. 1. What is your name, age, residence, and occupation?

A. Ulrich Young; age, 34; occupation, book-keeper; Hyde Park, Illinois.

Q. 2. For whom are you book-keeper, and how long have you been?

A. For Gimbel, Florsheim & Co.; since 1870.

Q. 3. Is Simon Florsheim one of that firm?

A. Yes, sir.

Q. 4. Do you know Gustav Schilling? And, if you do, did Simon Florsheim pay him any money in 1879 on his own individual account?

A. I know Schilling, and I know Mr. Florsheim paid him some money.

317 Q. 5. Did he pay him money at different times, and what amount? I mean money that was not on account of the firm of Gimbel, Florsheim & Co., but on Simon Florsheim's personal account.

A. He has paid him different amounts at different times on his personal account.

Q. 6. What part of the year 1879 was it that he paid him these sums, as near as you can tell?

A. Between January and September—October.

Cross-examination waived.

ULRICH YOUNG.

Subscribed and sworn to before me this 7th day of April, 1882.

[SEAL.] GEO. R. CUTLER,
Notary Public, Cook Co., Ill.

(It is stipulated by counsel for the respective parties to this interference that the foregoing deposition of Ulrich Young, although taken subsequently to April 6th, 1882, the time set for closing the testimony in behalf of Simon Florsheim, shall have the same force and effect as if duly taken within the time allotted.)

The next witness, JAMES P. MARSH, being first duly sworn, testifies as follows:

Q. 1. What is your name, age, residence, and occupation?

A. James P. Marsh; Chicago; I am a manufacturer; I am in my 41st year.

Q. 2. Are you acquainted with Simon Florsheim, one of the parties to this interference?

A. Yes, sir.

318 Q. 3. Did you coil for him any wire; and, if so, what kind of wire, and when was it that you first did anything of that kind for him?

A. It was either the last of January or the first of February, 1879; it was fine, small, brass wire—spring wire—less than a quarter of an inch, I should say, in diameter.

Q. 4. Do you mean the wire was less than a quarter of an inch in diameter, or the coil?

A. The coil.

Cross-examination:

C. Q. 1. How do you fix the date when you coiled this wire for Mr. Florsheim?

A. From memory.

C. Q. 2. Were there any collateral circumstances that enabled you to fix that date so accurately?

A. Yes, sir.

C. Q. 3. Have you any record in your books that enables you to do so?

A. Not in the connection with the coiling of the wire—I haven't.

C. Q. 4. Have you, within the last few months, talked with Mr. Simon Florsheim concerning the coiling of this wire and the time when it was done?

A. Yes, sir; I have.

C. Q. 5. It was during those conversations that the circumstances and time were brought to your memory, was it not?

A. It may have revived my memory in the matter.

JAMES P. MARSH.

Subscribed and sworn to this 7th day of April, 1882, before me—

[SEAL.] GEO. R. CUTTER,
Notary Public, Cook Co., Ill.

319 (It is stipulated by counsel for the respective parties to this interference that the foregoing deposition of James P. Marsh, although taken subsequently to April 6th, 1882, the time set for closing the testimony in behalf of Simon Florsheim, shall have the same force and effect as if duly taken within the time allotted.)

Adjourned to 2 o'clock p. m., same day.

Met, at 2 p. m., pursuant to adjournment.

Present: As before.

The next witness, HUGH W. P. HULEATT, being first duly sworn, testifies as follows:

Q. 1. What is your name, age, residence, and occupation?

A. Hugh W. P. Huleatt; age, 36; buyer for Chas. Gossage & Co.; residence, Sherman House, Chicago.

Q. 2. How long have you been with Chas. Gossage & Co.?

A. About eight years.

Q. 3. Did Simon Florsheim, one of the parties to this interference, show you a corset, which he claimed to have made, that was new or different from the ordinary corset? If so, about when did he first show it to you and what did he claim there was new about it, if anything?

A. It was in 1879—March, I think it was—that this gentleman (pointing to Mr. Simon Florsheim) brought me a corset to show it to me different from any corset that I seen before, having on the sides of the corset a web, and in that web were steel wires running through, in, you might call it a Grecian pattern. The advantage that he claimed for it over a similar corset that was out
320 was that this spring was continuous and couldn't ravel or pull out. He brought the corset to me, not so much to sell it at the time as to ask my opinion on it. I considered it was a good thing, but suggested to him that instead of having this web in the back and having it open only in front that he make it the same as any other corset in shape—that is, to have it laced in the back with the springs only on the side. That was really, in substance, the whole of the matter.

Q. 4. Please look at this corset now shown you, marked "Florsheim Exhibit No. 4, Geo. R. Cutler, notary public," and state

whether that is like or unlike the corset which Simon Florsheim showed you in March, 1879; and if it is unlike it, state in what respect.

(Question objected to for the reason that the witness has not been exhausted as to his independent recollection on the subject before being called upon to identify the exhibit.)

A. The corset shown me had a continuous wire just like this one here. Whether the web was just the same width as this I cannot say; but I can say that it had this continuous spiral wire placed just as this is placed—that it ran backward and forward. It had those three pieces in just as we see this corset having them there; and this centre piece in the back was what I objected to for the reason that it gave the wearer no opportunity to either enlarge or contract the size of the corset.

Q. 5. Did any one else in the store of Chas. Gossage & Co. see the corset at that time, that you recollect of, besides you? If so, who?

A. From what Mr. Florsheim said to me at the time, I should suppose Mr. Baer had seen it. He said he was sent to me by
321 Mr. Baer, the buyer of our notion stock. I took the corset and showed it to our saleswoman in the corset department, Mrs. Thompson, and her opinion agreed with mine—that it wasn't well to have the piece in the back for the reasons stated.

(Counsel for Schilling objects to so much of the last answer as relates to Mr. Baer as being only hearsay.)

Q. 6. Do you know whether Mr. Simon Florsheim or the firm with which he is connected have since that time introduced and sold corsets with elastic sections under the arms, having continuous coiled-wire springs like this "Florsheim Exhibit No. 5, Geo. R. Cutler, notary public?" And, if so, state what you know about their introduction, sale, and manufacture of this style of corset.

(Question objected to as immaterial, irrelevant, and leading, and because the witness has not been shown to have any means for special knowledge upon this subject.)

A. I know nothing whatever about what sale it has had, not having handled that particular corset.

Cross-examination:

C. Q. 1. How do you know that this corset was first shown you by Mr. Florsheim in the year 1879?

A. That year we were making changes in our store, and the department was down-stairs at that time, and I remember distinctly going to the department to show it to the saleswoman.

C. Q. 2. How do you know that it was in the month of March?

A. For the reason that it was before I went East. I always go East in March. The department, in my absence, was moved up-stairs.

322 C. Q. 3. Where is Mrs. Thompson now?

A. I can't say.

C. Q. 4. Did Mr. Florsheim tell you that the spring in the web was made of steel?

A. The advantage he claimed for it was that it was steel, and, being continuous, it would not ravel or pull out.

C. Q. 5. Was Mr. Baer present when he showed it to you?

A. Mr. Baer introduced Mr. Florsheim to me, I believe. Whether he remained or not, I don't remember.

HUGH W. P. HULEATT.

Subscribed and sworn to this 7th day of April, 1882, before me—
[SEAL.] GEO. R. CUTLER,
Notary Public, Cook Co., Ills.

(It is stipulated by counsel for the respective parties to this interference that the foregoing deposition of Hugh W. P. Huleatt, although taken subsequently to April 6th, 1882, the time set for closing the testimony in behalf of Simon Florsheim, shall have the same force and effect as if duly taken within the time allotted.)

GEO. R. CUTLER,
Notary Public, &c.

The further taking of testimony here rests.

GEO. R. CUTLER,
Notary Public, Cook Co., Ills.

323 United States Circuit Court, Northern District of Illinois.

SIMON FLORSHEIM and THOMAS H. BALL
vs.
GUSTAV SCHILLING.

It is hereby stipulated by and between the parties to the above-entitled case, through their counsel, that the following original exhibits now on file in the clerk's office of the circuit court may be taken from the files in said cause and annexed to and made part of the transcript of the record which is being prepared by the clerk for the purpose of being filed in the Supreme Court of the United States, to wit:

Complainants' Exhibit Schilling's Preliminary Statement, Jno. C. MacGregor, notary public.

Complainants' Exhibit Florsheim's Preliminary Statement, Jno. C. MacGregor, notary public.

Complainants' Exhibit Complainants' Circular, Jno. C. MacGregor, notary public.

Complainants' Exhibit Schilling's Circular, Jno. C. MacGregor, notary public.

Defendant's Exhibit No. 10, Jno. C. MacGregor, notary public.
" No. 5, " "
" 2, " "
Defendant's Exhibit No. 6, Jno. C. MacGregor, notary public.

COBURN & THACHER,
Compl'ts' Sol'rs.
WM. ZIMMERMAN,
Defendant's Solicitor.

Endorsed: Filed Oct. 11th, 1886. Wm. H. Bradley, clerk.

324 Room No 44. (Interference.)

All communications should be addressed to "The Commissioner of Patents, Washington, D. C."

DEPARTMENT OF INTERIOR,
UNITED STATES PATENT OFFICE,
WASHINGTON, D. C., *Dec.* 14, 1881.

S. Florsheim, Chicago, Ills.:

Please find below a copy of a communication from the examiner concerning your patent No. 238,100, dated Feb. 22, 1881, "application for corsets," filed Aug. 12, 1881.

Very respectfully, V. D. STOCKBRIDGE,
Act'g Commissioner of Patents.

Room No. —.

Your case, above referred to, is adjudged to interfere with others, hereafter specified, and the question of priority will be determined in conformity with the rules.

The statement demanded by rule 105 must be sealed up and filed on or before the 19th day of Jan'y, 1882, with the subject of the invention and name of party filing it indorsed on the envelope. The subject-matter involved in the interference is—

325 1. In a corset, an elastic section composed of two thicknesses of cloth or other material, having tubes in combination with the spiral metal springs enclosed by such tubes and arranged in groups to regulate the elasticity of the section, such groups being all composed of a single continuous spring passed back and forth through the tubes and secured at its ends.

2nd. An elastic section or gore composed of material having tubes extending only part way across the same and plain margins outside of said tubes and spiral metal springs arranged in groups in such tubes, the springs of the several groups being made continuous.

3rd. A corset laced at the back and having the elastic side sections extending from under the arms down over the hips, each of such sections being composed of material having puckered tubes extending part way across the same and plain margins outside of said tubes and spiral metal springs arranged in groups in such tubes and made continuous, claimed by you and by the applicant in your 1st, 2nd, and 3rd claims.

Your patent interferes with the application of G. Schilling, of Chicago, Ills., whose case — filed Nov. 19, 1881, and whose att'y is P. C. Dyrenforth, of Chicago, Ills.

Endorsed: Filed Jan'y 25, 1886. Wm. H. Bradley, clerk.

326 "COMPLAINANT'S EXHIBIT SCHILLING *v.* FLORSCHEIM INTERFERENCE, LETTER No. 2." Jno. C. McGregor, Notary Public.

Room No. 1.

All communications should be addressed to "The Commissioner of Patents, Washington, D. C."

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
WASHINGTON, D. C., *May 5th*, 1882.

In re interference.

SCHILLING
vs.
FLORSHEIM. } Before the Examiner of Interferences.

Corsets.

Simon Florsheim, care of Coburn & Thacher, Chicago, Ills.:

Please find below a communication from the examiner in charge of interferences in regard to the above-cited case.

Very respectfully,

E. M. MARBLE,
Commissioner of Patents.

Gustav Schilling having abandoned the application here involved, the interference is dissolved.

328 UNITED STATES PATENT OFFICE.

SIMON FLORSHEIM, of Chicago, Illinois, assignor of one-half to Thomas H. Ball, of same place.

Corset.

Specification forming part of Letters Patent No. 238,100, dated February 22, 1881; application filed August 12, 1880. (Model.)

To all whom it may concern:

Be it known that I, Simon Florsheim, of Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful improvement in corsets, of which the following is a specification.

The object I have in view is such an improvement upon the corset shown in the patent granted November 25, 1879, to Gustav Schilling and myself that while the same will possess all of the advantages obtained by the use of the covered and grouped metal spiral springs it will allow an easier and more equal expansion of the entire corset, will adapt itself more perfectly to the form of the wearer, and will better supply the popular want, in that it will have means for lacing the corset at the back. The improved corset also includes a better and cheaper method of securing the springs and forming the groups, whereby the elastic

(Model.) 327

S. FLORSHEIM.

Corset.

No. 238,100. Patented Feb. 22, 1881

Fig. 1.

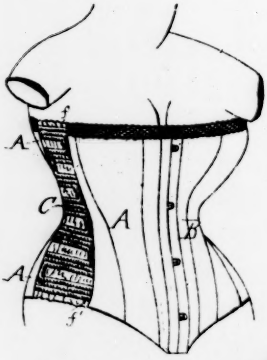


Fig. 2.

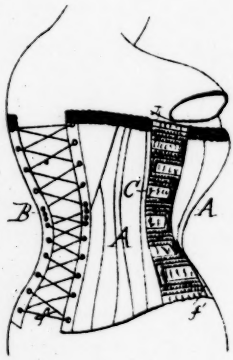


Fig. 3.

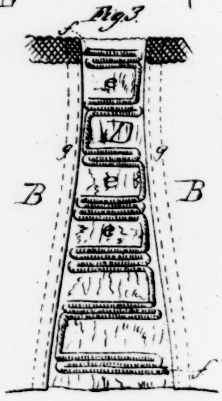


Fig. 4.

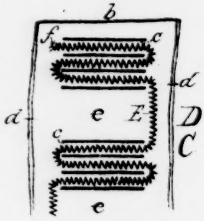
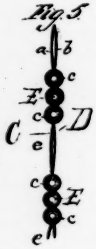


Fig. 5.



Witnesses:
F. B. Townsend
F. W. Haschagen

Inventor
Simon Florsheim
per Lott & Dyer
Attorneys

sections can be stitched in place on a machine without interfering with the springs, and the elasticity of the sections cannot be injured by the stitching.

My invention consists in the peculiar means for accomplishing this object, as fully hereinafter explained, and pointed out by the claims.

In the accompanying drawings,

(Here follows diagram marked page 327.)

forming a part hereof, Figure 1 is a view of the corset in position from the front; Fig. 2, a similar view from the rear; Fig. 3, an elevation of a portion of one side of the corset, showing one of the elastic side sections; Fig. 4, a detail view, showing the preferred way of arranging and forming the springs of the groups, one side of the covering-cloth being removed; and Fig. 5, a vertical section through a portion of one of the elastic side sections of the corset.

Like letters denote corresponding parts in all the figures.

The corset is composed of two separable parts, A B, which are secured together at the front, as usual, by studs and loops, and at the back have eyelets for receiving lacings. The central sections, C D, at the sides of the corset, which extend from under the arms down over the hips, instead of being made as usual, are constructed of two layers or thicknesses, *a b*, of cloth or other material, which thicknesses *a b* are sewed or woven together a portion of their width, to form horizontal tubes *c*, which receive and cover small closely-coiled spiral springs E, of metal. The pieces of cloth from which the sections C D are formed are considerably wider than such section when completed, so that when puckered laterally they will be of the desired width. The tubes *c* are located in the center of the sections, and do not extend to the edges of the same, as seen in Fig. 4, so that margins *d* will be left at the ends of the tubes, which margins are lapped with the adjoining sections of the corset and stitched thereto. The springs are arranged in groups, as shown, with puckered spaces *e*, of cloth, between such groups. The number of springs composing the groups will vary, according to location, so as to give the requisite stiffness and elasticity. Thus, at the top and bottom of the elastic side sections the groups of springs should not be made so stiff as at the waist of the corset. The springs are passed through the tubes *c*, which are puckered over the springs to the desired extent. The springs terminate at the ends of the tubes, and are secured to the thicknesses *a b* so as to leave clear margins, *d*, of unpuckered cloth outside of such springs. This is a great advantage over the construction shown in the patent before referred to, since it enables the elastic sections to be stitched into the corset on a sewing-machine, which cannot be well done when the ends of the spring are secured by the same stitching, since the needle strikes the coils of the spring, and either cuts the spring or breaks the needle. Herein, also, is one of the peculiar advantages over rubber cloth. Rubber-cloth, when stitched into a corset, always has more or less of the rubber cords cut off by

the needle, and it is thus greatly weakened, while in my corset the elasticity of the sections cannot be affected by the stitching.

The cheapest manner of arranging and securing the groups of springs to secure the above advantages is by making all the groups of each section from a single continuous length of metal spiral spring. The spring is secured at its upper end by stitches *f*, passed through the thickness *a b* at the end of the upper tube *c*, and inclosing one or more coils of the spring. The spring is then passed back
328½ and forth through the tubes, which are puckered at the same time. After forming one group, the spring extends down between the thicknesses *a b* to the next group, and so on till the lowest group (or the uppermost group, as the case may be) is finished, when the spring may be cut off, if there is more than required, and will be secured by stitches *f'*, passed through the thickness *a b*. The elastic section can then be placed in the corset, the plain margins *d* being lapped with the edges of the adjoining sections, and secured by lines, *g*, of machine-stitching.

By making the groups of springs of a single piece of coiled wire, passed back and forth through the tubes, and from one group to the other, the groups relieve each other somewhat, and when one group is subjected to great strain the springs of the adjoining groups are stretched also. In addition, by constructing the spring in this manner, no ends are left to wear through the cloth, as would be the case if separate springs sewed at their ends were used. It would be impracticable to insert separate springs, and sew them in position at the ends of the tubes, and if such springs were used they would pull away from the fastening-stitches in a short time. The springs can only be stretched to the full width of the cloth composing the side sections, and they will be thus limited in their expansion, so as not to be injured by being stretched too far.

By having the elastic sections in the sides of the corset the corset can adapt itself to different forms without the use of other elastic sections or gores, and such elastic side sections, by extending the entire length of the corset from under the arms down over the hips, allow the front and back of the corset to expand and contract from these central side points independently of each other and more easily and freely than when a back elastic section is used.

My side elastic sections are made continuous from the top to the bottom of the corset, leaving no open spaces.

The covered metal springs possess great advantages over rubber-cloth for this purpose other than those before mentioned. The rubber-cloth is not nearly so durable, and soon wears out and loses its elasticity at points subjected to the most strain. The rubber-cloth also has equal stiffness throughout, and cannot be regulated to have different degrees of elasticity at different points, and it, further, does not possess that independent elasticity obtained by the groups of springs, each group acting wholly independent of all the other groups. The covered metal springs, also, do not heat and bind the flesh, as does the rubber-cloth.

It is essential, also, that the springs be arranged in groups, since if placed contiguous throughout the elastic sections the corset would

be much too heavy and expensive, and such sections would be too stiff at some points and not stiff enough at others.

As a modification of the corset, it could be made continuous at the back without any provision for lacing, or the back could be provided with an elastic section: but I prefer the construction shown, since it enables the wearer to adjust the corset by means of the lacings, so that the elastic sections will always give to the corset an easy and pleasant tension.

What I claim as my invention is—

1. In a corset, an elastic section composed of two thicknesses of cloth or other material, *a b*, having tubes *c*, in combination with the spiral metal springs E, inclosed by such tubes, and arranged in groups to regulate the elasticity of the section, such groups being all composed of a single continuous spring passed back and forth through the tubes and secured at its ends, substantially as described and shown.

2. An elastic section or gore composed of material having tubes extending only part way across the same, and plain margins outside of said tubes, and spiral metal springs arranged in groups in such tubes, the springs of the several groups being made continuous, substantially as described.

3. A corset laced at the back and having the elastic side sections, C D, extending from under the arms down over the hips, each of such sections being composed of material having puckered tubes extending part way across the same, and plain margins outside of said tubes, and spiral metal springs arranged in groups in such tubes and made continuous, substantially as described and shown.

SIMON FLORSHEIM.

Witnesses:
F. W. KASEHAGEN.
H. A. BAUMANN.

330 UNITED STATES PATENT OFFICE.

SIMON FLORSHEIM, of Chicago, Illinois, assignor of one-half to Thomas H. Ball, of same place.

Elastic Gore, Gusset, &c., for Wearing-Apparel.

Specification forming part of Letters Patent No. 238,101, dated February 22, 1881; application filed July 16, 1880. (No model.)

To all whom it may concern:

Be it known that I, Simon Florsheim, of Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful improvement in elastic gores, gussets, and sections for wearing-apparel, of which the following is a specification.

The substitution of spiral metal springs for india-rubber as an element in elastic gores, gussets, and sections for wearing-apparel has not heretofore proved successful, for the reason that in all instances the springs have been stayed at their ends by the same

stitching that secures the gore to the material of the article of wearing-apparel to which it is applied. This stitching cannot be done by machine, since the wire of the springs would be cut by the needle when struck squarely, or the needle itself be broken; and when the elastic gore or section is sewed in position by hand, and the springs are secured by the same stitching, the seams are thick and uneven, and present a bungling appearance, which destroys the salableness of the article, in addition to the fact that the hand-sewing has heretofore made the use of metal springs impracticable on account of the increased cost.

It is the object therefore of my invention to overcome the objections to the employment of spiral metal springs as a substitute for india-rubber in elastic gores, gussets, and sections for wearing-apparel, and this I accomplish by extending the springs only part way across the covering material, and staying them at their ends by securing them to such covering material itself, while the covering material is extended beyond the ends of the springs to form inelastic margins, by which the gore can be secured in position by stitching these margins, on a sewing-machine, to the material of the article of wearing-apparel to which the gore is applied. This elastic gore is adapted more especially for corsets, for the sides of gaiters, and for use upon the waistbands of overalls and pantaloons; but it can be employed upon other articles of wearing-apparel wherever rubber-cloth is now used, and also, on account of its strength, durability, coolness, its independence of action, and the nicety with which its elasticity can be regulated, in many places where rubber-cloth cannot be employed to advantage.

My invention consists, first, in securing the metal springs to the covering material and extending such covering material beyond the ends of the springs to form inelastic margins; second, in puckering the center of such covering material, while the inelastic margins are left plain and unpuckered; third, in weaving the covering material of such elastic gore with the covering-tubes formed therein in the process of manufacture, such material and the tubes being woven of a particular pattern to suit the location where the elastic gore is intended to be used, the tubes not extending to the ends of the material; and, fourth, in the peculiar fastening for securing the springs to the covering material, all as fully hereinafter explained, and pointed out by the claims.

(Here follows diagram marked p. 329.)

In the accompanying drawings, forming a part hereof, Figure 1 is a view of the covering material with four tubes woven therein; Fig. 2, the covering material with three groups of two tubes each woven therein; Fig. 3, a view of a group of four metal springs secured together by the peculiar fastening device; Fig. 4, a view of the elastic gore complete, the upper thickness of the covering material being removed at one end to show the springs; Fig. 5, a cross-section of the same on line 2 2 of Fig. 4, and Fig. 6 an end view of one of the fasteners for securing the springs of a group to the covering material.

(No Model.) 329

S. FLORSHEIM.

Elastic Gore, Gusset, &c., for Wearing Apparel.

No. 238,101. Patented Feb. 22, 1881.

Fig. 1

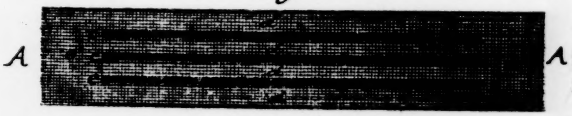
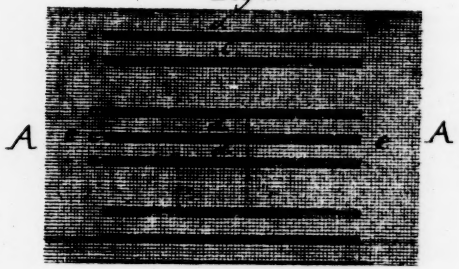


Fig. 2



No. 2 in q. Florsheim Deal. N. Schilling } N. 3 in q.

Fig. 3

Fig. 4

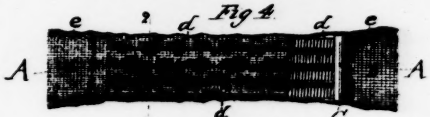


Fig. 5

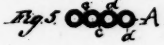


Fig. 6

Witnesses:
F. B. Townsend
Wm. Rothhoff

Inventor:
Simon Florsheim
per Lacy & Dyer,
Attorneys

Like letters denote corresponding parts in all the figures.

A is the covering material, and B the closely-coiled spiral springs of metal, which are inclosed in tubes *d* in the covering material. The covering material is puckered over the springs, which, however, do not extend to the edges of such material, inelastic and unpuckered margins *e* being left outside of the ends of the springs. The springs are secured at their ends to the covering material, so that they are wholly independent of the stitching that secures the gore in position. The covering material is made of such shape and size that when it is puckered over the springs the elastic gore will be suitable for the location where it is intended to be used. The
330½ elastic gore is secured in position by stitching the plain inelastic margins *e*, on a sewing-machine, to the material of the article in which the gore is to be employed.

In addition to the advantages before stated the elastic gore provided with these inelastic margins possesses great advantages over rubber-cloth, for the reason that in sewing the rubber-cloth in position more or less of the rubber ligaments are cut off by the needle, and such ligaments soon pull out in use, and do not longer serve to resist the strain on the cloth, while in my gore the elasticity is not injured in the least by the stitching.

Where the purpose for which my elastic gore or gusset is to be used requires only a band having a single group of springs—as, for instance, for a strap to be applied to the waistbands of overalls or pantaloons—the covering material is divided throughout its width into tubes of equal size, as shown in Figs. 1 and 4; but where the material is of considerable width, (at right angles to the springs,) as when used for gores or sections in corsets, or for the sides of gaiters, the tubes are arranged in groups, as shown in Fig. 2. Such groups may have two or more tubes each. Those groups where the greatest strength and stiffness are required would have the greatest number of tubes to accommodate a corresponding number of springs, while in portions of the gore where great elasticity would be better and not so much strength is required the groups would have a less number of tubes; or the covering material may be provided throughout its width with contiguous tubes, and the springs could then be arranged in groups, as desired, a number of tubes between the groups of springs not being occupied.

The covering material I prefer to weave of two thicknesses, *a b*, and in the process of weaving the threads of the two thicknesses are interlocked on lines *c*, running parallel with the warp. These interlocked lines do not extend to the edges of the covering material, the margins *e*, of double thickness, extending beyond the tubes formed by such interlocked threads. For this reason the covering material has to be woven of a particular pattern, having tubes of the right length and margins of proper width to adapt the elastic gore or section, when complete, to the location where it is intended to be used.

The woven covering material with the tubes woven therein during the process of manufacture is cheaper, stronger, and neater in appearance than when such tubes are formed by sewing.

The springs of each group are preferably secured together at their ends and to the covering material by split metal tubes C, which are pushed over the end coils of the springs, the edges *f g* of the split in the tubes being lapped past each other in spiral form to accommodate them to the coils of the springs. The split tubes are pinched or partly closed at their ends to retain the springs in position.

Instead of the split tubes, the springs may be connected by small plates pushed between the coils. These metal fastenings lie across the ends of the tubes between the thicknesses *a b* of the covering material, and stay the ends of the springs by fixing them to the covering material at those points.

In the elastic gore the covering material performs three offices, viz: it covers the springs, limits their expansion, and furnishes means for securing the gore in position.

What I claim as my invention is—

1. An elastic gore, gusset, or section for wearing apparel, composed of a covering material having tubes, spiral metal springs inclosed by such tubes and not extending to the edges of the covering material, and stayed at their ends by such covering material, and inelastic margins outside of the springs, substantially as described, for the purpose set forth.

2. An elastic gore, gusset, or section composed of a covering material having tubes, and spiral metal springs inclosed by such tubes and not extending to the edges of the covering material, and stayed at their ends by such covering material, said covering material being puckered at its center over the springs, and having plain unpuckered margins extending wholly outside of the springs, substantially as described and shown.

3. An elastic gore, gusset, or section composed of a covering material woven with tubes therein of a particular pattern to suit the location where the elastic gore, gusset, or section is intended to be used, such tubes not extending to the edges of the covering material, and spiral metal springs inclosed by such tubes, and stayed by the covering material at the ends of the tubes, substantially as described and shown.

4. In an elastic gore, gusset, or section, the combination of the covering material made of double thickness, and having tubes not extending to the edges of the covering material, with spiral metal springs inclosed by such tubes, and fastenings extending across the ends of the tubes between the thicknesses of the covering material, substantially as described and shown.

SIMON FLORSHEIM.

Witnesses:
F. W. KASEHAGEN.
WM. ROTTHOFF.

331 In the matter of the interference in the United States Patent Office between the application of Gustav Schilling, filed November 19th, 1881, and the patent of Simon Florsheim, No. 238,100, dated February 22nd, 1881—improvement in corsets.

Preliminary Statement of Gustav Schilling.

STATE OF ILLINOIS, } ss:
County of Cook, }

Gustav Schilling, being duly sworn, deposes and says that he is one of the parties named above, and that he believes himself to be the original and first inventor of the invention disclosed in his application filed November 19, 1881, and that he is the original and first inventor of the invention upon which the Patent Office has declared an interference on certain issues or counts in the following words, to wit:

332 "(1st.) In a corset, an elastic section composed of two thicknesses of cloth or other material, having tubes, in combination with the spiral metal springs inclosed by such tubes and arranged in groups to regulate the elasticity of the section, such groups being all composed of a single continuous spring passed back and forth through the tubes and secured at its ends.

"(2nd.) An elastic section or gore composed of material having tubes extending only part way across the same, and plain margins outside of said tubes, and spiral mental springs arranged in groups in such tubes, the springs of the several groups being made continuous.

"(3rd.) A corset laced at the back and having the elastic side sections extending from under the arms down over the hips, each of such sections being composed of material having puckered
333 tubes extending part way across the same, and plain margins outside of said tubes, and spiral metal springs arranged in groups and made continuous."

Deponent say- that he conceived the invention set forth in claims 1 and 2 in the month of March or April, 1879, fully matured the same in his mind, explained it to others, and made a sample, which he used for a Patent-Office model in an application for a patent filed in the United States Patent Office November 6th, 1879, and that said model was filed with the application.

That he conceived the invention set forth in claim 3 in the month of January, 1880, fully matured the same in his mind and explained it to others.

That in the month of February or March, 1880, he made several corsets, each embracing every detail of construction set forth
334 in his specification and claims, and that they were seen and examined by divers persons.

That in the month of March, 1880, he had several corsets, each embracing every detail of construction set forth in his specification and claims, made by a manufacturing firm in the city of Chicago, and that the first of these was made by the foreman of that firm in

person, acting under deponent's instructions; that afterwards, in April or May, 1880, deponent himself made four additional corsets, each likewise embracing every detail of construction set forth in his specification and claims.

That these last-named corsets were sent to a certain firm in Boston, in the State of Massachusetts, and that one of them was returned to deponent on the 30th day of November, 1880, and given
335 by him to his daughter, who wore it until the month of September, 1881.

That in the month of June, 1880, deponent made a corset, likewise embracing every detail of construction set forth in his specification and claims, for the wife of one of his friends, and that he explained it to his said friend and gave it to him for his wife, who wore it for several months and then gave it to a servant.

GUSTAV SCHILLING.

Sworn to and subscribed before me this 24th day of January, A. D. 1882.

[SEAL.] CHARLES C. LINTHICUM,
Notary Public.

Ex'd: A. H.

335½ [Endorsed:] Interference in the U. S. Patent Office. Schilling *vs.* Florsheim. Corsets. Preliminary statement of Gustav Schilling. Schilling *vs.* Florsheim. Statement of Schilling. Filed Jan'y 21st, 1882. App'd Jan'y 21st, 1882. P. C. Dyrenforth, att'y for Schilling, 79 Honore building, Chicago, Ill.

[Endorsed:] Statement. Jno. C. MacGregor, N. P. Schilling's prelim. statement. Jno. C. MacGregor, N. P.

336 [Endorsed:] United States circuit court, northern district of Illinois. In equity. Simon Florsheim and Thomas H. Ball *vs.* Gustav Schilling. "Complainants' Exhibit Schilling's Preliminary Statement." [Jno. C. MacGregor, notarial seal, Cook Co., Ills.] Jno. C. MacGregor, notary public.

337 In the U. S. Patent Office. Interference.

G. SCHILLING
vs.
SIMON FLORSHEIM.

Preliminary Statement of Simon Florsheim.

STATE OF ILLINOIS, } *ss:*
County of Cook, }

Simon Florsheim, of the city of Chicago, in said county and State, being duly sworn, doth depose and say that he is a party to the interference declared by the Commissioner of Patents, December 14, 1881, between G. Schilling's application for letters patent, filed November 19, 1881, and the patent of Simon Florsheim, granted February 22, 1881, for corsets; that he conceived the invention set forth

in the declaration of interference in the early part of February, 1879, and within a few days after the filing of the application of Gustav Schilling for a patent for an elastic gore for gaiters, on which application letters patent No. 214,712 were granted April 22, 1879; that this deponent had purchased an interest in the invention
338 described in the said application, and attempted to have it put into use in a pair of shoes which he caused to be made for himself, but found it to be impracticable on account of the springs being necessarily broken by the operation of the sewing machine used to stitch the gore into the shoe; that, with a view to saving the money which he had invested in the said invention of the said Schilling, he directed his thoughts to remedying the defect which made the said invention impracticable, and almost immediately conceived the invention as defined in the declaration of interference; that he immediately made it known to others, and in the same month of February, 1879, explained it to the said Gustav Schilling; that he also immediately on conceiving the idea caused it to be embodied in a sample section of the elastic fabric described in the issue, and that in the first half of the same month of February he caused it to be put into experimental and successful use in the manufacture of a pair of overalls, and shortly afterward, and in the same month of February, 1879, in the manufacture of a corset, as set forth in the 3d paragraph of the issue; that from February on to October, 1879, he caused the said elastic fabric to be manufactured for sale
339 in considerable quantities, employing the said Schilling in such manufacture, and that in the month of October, 1879, in partnership with his brothers, Augustus, Henry, and Philip Florsheim, he established a factory for the manufacture of the said fabric, and manufactured and sold the same in large quantities, and that the same has ever since been extensively in use.

SIMON FLORSHEIM.

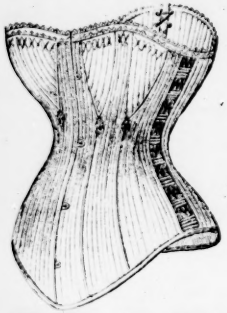
Subscribed and sworn to before me this twenty-fourth day of January, 1882.

[SEAL.] GEORGE R. CUTLER,
Notary Public, Cook Co., Ills.

[Endorsed:] Preliminary statement of Simon Florsheim. Jan. 24, 1882.

340 [Endorsed:] United States circuit court, northern district of Illinois. In equity. Simon Florsheim and Thomas Ball *vs.* Gustav Schilling. "Complainant's Exhibit Florsheim preliminary statement." [Jno. C. MacGregor, notarial seal Cook Co., Ills.] Jno. C. MacGregor, notary public.

BALL'S HEALTH PRESERVING CORSET



A PERFECT CORSET SECURED AT LAST.

SOMETHING ENTIRELY NEW

By a new and novel arrangement of a **Series of Fine Coiled Wire Springs,** which yield readily to every movement of the wearer, the most **Perfect Fitting** and **Comfortable** Corset ever made is secured.

These springs are warranted to retain their perfect elasticity until the Corset is worn out, and, unlike rubber, will not heat the person nor decay with age. It is approved by the best physicians in the country, as shown by certificates below.

Is warranted to give satisfaction or money refunded.

NEW HAVEN, CONN., *Nov.* 2, 1881.

Messrs. Foy, Harmon & Co.:

I have examined Ball's Health Corset and have no hesitation in saying that it is, in my opinion, the best I have ever seen. I cannot see how, with one of these corsets, it will be possible to practice tight lacing. If you can succeed in bringing it into general use you will confer a great blessing on the females of our country.

Very truly yours, P. A. JEWETT, M. D.

NEW HAVEN, CONN., *July* 6, 1882.

Messrs. Foy, Harmon & Co.:

I have examined the Ball Health-Preserving Corset and have had for some time several patients wearing them. From my investigation I am thoroughly satisfied that it has merits above any other corset made.

W. G. ALLING, M. D.

NEW HAVEN, CONN., *Dec.* 5, 1881.

Messrs. Foy, Harmon & Co.:

In my opinion Ball's Health-Preserving Corset is a thorough success and does all you claim for it. In cases where physicians, as a rule, would recommend that corsets be discarded altogether it is capable of affording great comfort, because it will support the body without causing compression.

F. L. DIBBLE, M. D.

CHICAGO, *Oct.* 25, 1880.

I have examined Ball's Health-Preserving Corset and believe it is in every respect best calculated to preserve the health of the woman who wears it. It does not seem possible for the wearer of such a corset to be injured by tight lacing. It should receive the favorable indorsement of the physicians who have the opportunity of examining it.

JAMES NEVIUS HYDE.

Manufactured by FOY, HARMON & CO., New Haven, Conn.

[Endorsed:] U. S. circuit court, nor. dist. of Ills. In equity. Simon Florsheim and Thos. H. Ball *vs.* Gustav Schilling. "Complainants' Exhibit Complainants' Circular." [Jno. C. MacGregor, notarial seal, Cook Co., Ills.] Jno. C. MacGregor, notary public.

342 [Endorsed:] U. S. circuit court, nor. dist. of Ills. In equity. Simon Florsheim and Thos. H. Ball *vs.* Gustav Schilling. "Complainants' Exhibit Schilling's Circular." [Jno. C. MacGregor, notarial seal, Cook Co., Ills.] Jno. C. MacGregor, notary public.

(Here follows exhibit marked pp. 342, 343.)

344 United States Circuit Court, Northern District of Illinois.

SIMON FLORSHEIM and THOS. H. BALL
vs.
GUSTAV SCHILLING. } In Equity.

It is hereby stipulated by and between the parties hereto that the testimony in the above-entitled cause may be taken by either party before any notary public of the county where the evidence is taken, in the same manner and with the same effect as if taken before a special examiner duly appointed by the court, upon giving reasonable notice of their intention so to do.

COBURN & THACHER,
Complainants' Solicitors.
FLOWER, REMY & GREGORY,
Defendant's Solicitors.

Chicago, Ill., July 25, 1882.

UNITED STATES CIRCUIT COURT,
Northern District of Illinois, } *ss:*

SIMON FLORSHEIM and THOS. H. BALL
vs.
GUSTAV SCHILLING. } In Equity.

Met at the office of William Zimmerman, room 42, Borden block, Chicago, Illinois, on the 27th day of November, 1882, at 11 o'clock a. m., to take testimony on behalf of the defendant in the above-entitled cause.

345 Present: L. L. Coburn, Esq., of Coburn & Thacher, on behalf of complainants, and John C. Chumasero, Esq., on behalf of defendant, whereupon the following proceedings were had:

Counsel for the complainants waives the notice heretofore served, and consents that the testimony may be taken before John C. McGregor, notary public.

GUSTAV SCHILLING, the first witness, being duly sworn, deposes and says, in answer to interrogatories propounded to him by counsel for defendant, as follows:

Q. 1. What is your name, age, residence, and occupation?

A. Gustav Schilling; age, 58; 177 Oak street, Chicago; corset business.

Q. 2. Mr. Schilling, are you the defendant in this suit?

A. Yes, sir.

Q. 3. Where were you born, Mr. Schilling?

A. In Prussia.

Q. 4. How long have you been a resident of the United States?

A. Since 1850.

Q. 5. How old were you when you arrived in the United States?

A. Twenty-six years.

Q. 6. What was your business when you were in Europe—in Prussia, Germany; what business were you engaged in?

A. Glove-maker, suspenders, and trusses.

Q. 7. Did you serve an apprenticeship to that business, or how did you take it up?

A. I can't understand that well. I learned it by my boss, the glove-maker. Made all this kind of work—suspenders, trusses, and different kind of work.

346 Q. 8. How long was you with him learning the business?

A. Four years.

Q. 9. After leaving him did you do business on your own account?

A. No, sir. I worked in Berlin, Copenhagen, and other places.

Q. 10. In the manufacture of gloves and suspenders did you use any kind of springs; and, if so, what kind?

A. We used springs in suspenders; we used springs in garters; we used springs in trusses, and in different kinds of work—coiled-wire springs.

Q. 11. State how those springs were applied by you—in what manner.

A. We made double leather or cloth sewed in tubes and groups, too, and, but after that was sewed, put in solid wire needles in the tubes and pushed it together that it comes out the half length, and then pulled out the wire needles and put in the coiled-wire springs, and then we fastened it on each end.

Q. 12. The tubes you speak of, how far did they extend across the cloth that you speak of?

A. About half an inch, so as to leave a margin.

Q. 13. You don't understand my question. What I want to ask you is whether the tubes extended entirely across the cloth or left a margin.

A. They left a margin.

Q. 14. How much of a margin?

A. That is different, according to the kind of work. Sometimes a half inch, three-quarters of an inch, or one inch.

Q. 15. What was the margin for?

A. For to sew them in, in work where the needle run—in suspenders, or trusses, or any kind of work.

347 Q. 16. Did you use more than one piece of cloth or other fabric in making those tubes? I want you to explain how those tubes were made.

A. Take two thicknesses of cloth or leather and lay them together and sew in tubes and groups, too, by hand or machine.

Q. 17. Describe how those springs which you speak of were put in groups.

A. When the fabric is sewed we put in the tubes solid wire needles and push them together and make, so, the half length; then pull out the needles and put in the spiral wire springs and fastened it with the piece of cloth or leather on the springs so that the springs couldn't slip back.

Q. 18. Please explain what you mean by the half length.

A. So that the springs get the stretch. When I want four-inch stretch, then I have to make the spring to two-inch, and then push the spring together. That is just as much as the springs can stand.

Q. 19. You use the term "push it together." Push what together?

A. Push the fabric together on the solid wire needles. That is what we call pushing together.

Q. 20. Was there any crimping or puckering used? If so, state how and in what way.

A. Before 1879 I made by hand, and after that I invented a crimping machine. The first is made by Mr. Gindele—he made the first one. Since that time I made all on this machine.

Q. 21. When you did it by hand—explain how the crimping was done.

A. The crimping was done just the same way, like on a machine; pushed it with two hands together (showing with his hands), but it was hard work.

348 Q. 22. After you came to this country when did you first begin to make any articles of manufacture in which springs of the kind to which you have referred were used?

A. I made the first springs on gloves here in Chicago in 1877 and '78, and my customer bothered me so much that time — that he wanted a better fastener on gloves than buttons, and so I hunted around in the wire stores to get those springs, and one—I forgot his name—said to me, You can't buy that kind of springs at all here, not if you pay ten dollars a pound; and so I bought a pound of wire, made me some fixing on my sewing-machine, and coiled the springs myself.

Q. 23. Did you apply those springs to gloves; if so, how did you apply them and to what part of the glove?

A. I made them on winter gloves and on the wrist.

Q. 24. How many springs did you put on each glove?

A. Three springs.

Q. 25. Were those springs separate or continuous?

A. First time was separate—before '79.

Q. 26. Did each spring have a separate tube?

A. Yes, sir.

Q. 27. Do you know Mr. Simon Florsheim, one of the complainants in this case?

A. Yes, sir.

Q. 28. When did you first become acquainted with him?

A. In 1878.

Q. 29. Did you have any connection with him in making gloves in which the springs you last spoke of were used?

A. Yes, sir.

Q. 30. State fully all about that.

A. It was with Gimbel & Florsheim.

349 The further taking of testimony is here adjourned until ten o'clock a. m. Friday, December 1st, it being agreed between counsel that this adjournment for the accommodation of counsel for complainants shall not be counted as shortening defendant's time for taking his testimony.

WEDNESDAY, *December 27th*, 1882.

By consent of counsel, met at the office of William Zimmerman, room 42 Borden block, Chicago.

Present: As before.

Examination of the witness, GUSTAV SCHILLING, resumed:

Q. 31. Did you ever make an application of these springs to corsets in the old country?

A. No, sir.

Q. 32. If your testimony shows that you said you did, did you intend to be so understood—that is, did you mean to say that you made corsets in the old country with these springs?

A. No, sir; I did not. I made trusses.

Q. 33. You stated at the close of your examination, when we were here taking testimony the last time, that you had some connection with Florsheim, one of the complainants, and Gimbel in making gloves in which the springs you last spoke of were used. State fully all about that.

A. I made gloves for Gimbel & Florsheim since 1877. The first year I made no springs in. In 1878 I made springs in.

Q. 34. Did you have any talk with Simon Florsheim about those springs and getting a patent for them? If so, state the consideration.

A. The first year, in 1878, that I made the springs for him in the gloves I tell him that I made springs in the gloves in the place
350 of buttons; that that is a good deal better than the buttons, and he wanted to take notice of it. That was in 1878, and in '79, in the first days of January, I made a pair of custom gloves for a ticket agent — Grand Trunk Railroad Company. I got them gloves in my pocket. I brought them to Gimbel & Florsheim and showed them to him, and tell him that is a good fastener on gloves, and then he answer me: We got them gloves the whole summer; I don't take notice from them, and that's a pretty good thing; I see it now myself, and he showed them around to a good many men in the store and say: What you think about the fastener on them gloves? I think it is a good thing; and then I ask him what he think about Wolff Brothers; they wants to go in partnership with me and take a patent out; and then Florsheim he asks me, Wouldn't you take me for a partner? I answer him, Yes; if you pay the expenses what a patent costs, then I take you for a partner; and then he says, Go home and make a model that we can make application for a patent.

Q. 35. Did you take out a patent?

A. Yes, sir.

(Counsel for defendant here offers in evidence a duly certified copy of letters patent No. 218,322, issued from the Patent Office August 5, 1879, to Schilling & Florsheim for "improvement in gloves," and requests the same to be marked "Defendant's Exhibit No. 1.")

Q. 36. Well, after you got that patent out what did you do, if anything, in manufacturing gloves under that patent?

A. I manufactured gloves with the springs in the same way—with those springs. The difference is I made continuing springs in those glove springs, and in October I made application for a patent fastener on the springs, and I got that patent allowed.

351 Q. 37. How soon after you got that patent—I mean patent No. 1—did you commence manufacturing continuing springs—how soon after you got the patent?

A. I made continuing springs in February, 1879, before the patent was allowed.

Q. 38. Did you also get a patent for improvement in gaiters?

A. Yes, sir.

Q. 39. Who was that to—you or Florsheim, or both of you?

A. To me.

Q. 40. You say 'twas to you. Did Mr. Florsheim have any interest in it; and, if so, what?

A. Yes, sir; I made an assignment to Mr. Florsheim of one-half part.

Q. 41. Look upon the paper shown you and state whether that is the patent which you last speak of.

A. Yes, sir.

(Counsel for defendant offers and reads in evidence certified copy of letters patent granted Schilling & Florsheim April 22, 1879, No. 214,712, and the same is marked "Defendant's Exhibit No. 2.")

Q. 42. Now, did you manufacture gaiters under that patent?

A. Yes, sir.

Q. 43. What kind of springs did you use?

A. Continuing springs.

Q. 44. Did that elastic gore have any margin?

A. Yes, sir.

Q. 45. You say there was a margin. When did you first manufacture gaiters with that margin and continuing springs?

A. October, 1879.

Q. 46. Describe the difference between the single springs and what you term the continuing springs. How do they differ?

352 A. The single springs we fasten with three or four stitches on a piece of cloth or leather, and so we sew it in; and continuing springs take a long piece of spring, and put it in forward and back on the fabric what we sew it on. The fabric we sew it on we stitch it by machine, put in solid wire needles, push them together, and we take the needles out, leave the wire springs in, and fasten it on each side—on the top and bottom. I forgot to say we made the single springs just the same way, with the solid wire needles pushed together, just the same way like the other springs.

Q. 47. Look upon that document (showing paper) and state whether that patent was issued to you and Florsheim.

A. Yes, sir.

(Defendant's counsel offers in evidence letters patent granted to Schilling and Florsheim November 25, 1879, No. 222,082, for "improvement in corsets," marked "Defendant's Exhibit No. 3.")

Q. 48. When did you first know anything about continuing springs?

A. It must be about the middle part of February, 1879.

Q. 49. About that time did you have a conversation with Mr. Florsheim in regard to you and his going to the public library in Chicago? If so, state fully all that was said and what you and Florsheim did in pursuance thereof.

A. I come to Mr. Florsheim in the store, and he tell me he went into the public library a couple of days ago, find an English patent book, and ask me if I want to go along with him. He don't understand well how it means; and me go along in the library, ask for the book and get it, and read that English patent, from 1866, to Miller & Son; and as he come to that place where the patent
353 says they used this rubber in continuing, and then I says we have enough now. I know all about it, and then we give the book back. We come out on the street, and Mr. Florsheim ask me if I have understand it all. I say, Yes; that it is worth for us more than five hundred or a thousand dollars; and he ask me how, and I answer him, I say, We made it now just the same with springs so as they made with rubber; and Mr. Florsheim ask me, You think that will do? I say, Yes; I will go home and try it, and I go home and coil me a long spring and sewed a piece of cloth and put in the solid wire needles, and so I made the first continuous springs.

Q. 50. Explain more definitely what you mean when you say rubber continuing.

A. What I understand at that time. Got a long piece of rubber, put it in a needle, and put it in the fabric forward and back that connected with the tubes and the groups, too, and that each end on top and the bottom fastened.

Q. 51. Look upon the article given you and state whether it is a single or continuing spring.

A. It is continuing springs.

Q. 52. How does it differ from the single spring?

A. We have to fasten it, each spring separate on one piece of cloth, and so in continuing we use only one piece from top to the bottom, and fasten it on the top and the bottom, on each end.

Q. 53. Are those springs (pointing) all made in one piece or separate?

A. All in one piece.

Q. 54. Now, if I understand you, then, the spring is all one piece?

A. Yes, sir.

Q. 55. Do you mean that you take one piece of wire or other material and insert it in the first tube, then bring it around and
354 insert it in the second tube parallel to the first, and so on in

each succeeding tube without cutting off the wire until the whole spring is complete?

(Objected to as leading.)

A. Yes, sir.

Q. 56. Now, in the case of a single spring, where do you cut off the wire?

(Objected to as leading.)

A. We cut off the wire first in the piece—how long it should be—and after, when the fabric is pushed together on the solid wire needles, take the needles out and put in this piece of wire and fasten it between the margins and fasten on a piece of cloth that comes in here (pointing).

Q. 57. Let me see if I understand you. Do you mean that in making a single spring that you cut the wire off at the end of each tube, and then proceed in the same manner with each succeeding tube until the springs are completed?

A. I cut the wire before I put them into the fabric, and after I fasten it piece by piece on cloth or something else.

Q. 58. In making single spring, taking, for example, this piece of stuff before you, how long would you cut the wire for each tube?

A. I cut the wire just so long as they should be.

Q. 59. Then, if I understand you, the difference between single tubes and continuing tubes is that the single springs are each of them separate and the continuing tubes are made all of one piece of wire until the spring is finished?

A. Yes, sir.

(Defendant's counsel here offers in evidence the piece of cloth containing springs presented to the witness, and marks the same "Defendant's Exhibit No. 4.")

Q. 60. If I should read to you that part of the British patent which Mr. Florsheim read to you in the public library in Chicago would you recognize it or know it again?

355

A. Yes, sir.

(Defendant's counsel now reads from the British patent: "This invention has for its object improvements in the manufacture of elastic gussets, suitable for use in boots and stays and for other purposes. In the manufacture of gussets it is usual to weave the vulcanized India-rubber springs into the fabric in the process of manufacture, the India rubber forming a portion of the warp of the fabric; or, where the gussets are of leather, the vulcanized India-rubber springs are commonly attached to the leather by means of cement, and, in either case, each spring or line of India rubber has been a separate piece. Now, according to our invention, we secure the vulcanized India-rubber springs between two pieces of woven fabric, leather, or other material by stitching with a sewing machine, the stitches running in parallel lines and passing through the two pieces of fabric or material between the India-rubber springs, and

the springs, in place of being each a separate piece, are in one piece. The length of vulcanized India-rubber cord at the end of each traverse cross the gusset, being turned around and caused to return parallel to itself.")

Q. 61. State, if you recollect, whether or no that was read to you by Mr. Florsheim at the public library in Chicago.

A. Yes, sir.

(Defendant's counsel here offers in evidence certified copy, from the bound volumes of the Patent Office of the United States, of the specification in the matter of the English letters patent granted James Miller and James Miller, Jr., December 31, 1866, No. 3451, for "improvement in elastic gussets," and marked "Defendant's Exhibit No. 5.")

356 Q. 62. Mr. Schilling, did you ever know anything about continuous springs or continuing springs before you heard that read by Mr. Florsheim?

A. No, sir.

Q. 63. Did you have any conversation with Mr. Florsheim, after he read to you that patent, as to whether he knew anything about continuing springs until he found it in that book? And, if so, state the conversation.

A. I made a sample of this continuing springs after that, and comes to Mr. Florsheim and showed him the sample. He was glad about it, and then we talk about the press. I tell him he must have a press for this continuous springs. Well, Mr. Florsheim, he tell me, now just try to get one. I go to a man, his name is Brunk, and ask him about to make me a sample in wood. He says he can't do that, and sent me to a machine shop—his name is Mr. Mason; he made me one, but it wouldn't work. After that, about three or four weeks, or longer, I go with Mr. Florsheim to a boiler machine shop, and that man could not understand what we wanted. Two days after that we go to other machine shop; his name is Mr. Gruendel, on Canal street, and then we try to explain him that; he could understand it well. The next day I brought a piece of fabric sewed up, stitched by machine, in groups. There was solid wire needles in. I explained again how it must be made, and so he understood it and made one.

Further taking of testimony here adjourned until 10.30 o'clock a. m., Thursday, December 28, 1882, at same place.

THURSDAY, *December* 28, 1882.

Met pursuant to adjournment.

Present: As before.

Examination of witness, GUSTAV SCHILLING, resumed:

357 Q. 64. How soon after you were at the library with Mr. Florsheim and found out about this English patent was it before you began making continuing springs?

A. It was so soon as we went into the library and find out about

this English patent. Since that day I made nothing but continuous springs on any kind of work.

Q. 65. What was the first work you made with the continuous springs? What did you first put them into?

A. The first I made experiment, and after so much, I remember, made a model of overalls or pantaloons.

Q. 66. Well, let me ask you: You say you made overalls or pantaloons; was that a pantaloon garment?

A. So much as I understand, it is a pantaloons. I don't know what garment means.

Q. 67. What was the first experiment you made about pantaloons? What did you do?

A. It was a model for a patent.

Q. 68. Did you get out a patent for that to you and Florsheim?

A. Yes, sir.

Q. 69. (Counsel hands to witness a document and asks:) Examine that and see if that is the patent.

A. Yes, sir.

(Defendant's counsel here puts in evidence certified copy of letters patent to Gustav Schilling and Simon Florsheim, dated February 17, 1880, No. 224,559, for "improvement in pantaloon garments," marked "Defendant's Exhibit No. 6.")

Q 70. Did you ever make any pantaloon garments under this patent?

A. Yes, sir; one pair.

Q. 71. Why didn't you make more?

A. Mr. Florsheim go around with his sample and try to
358 sell them springs for pantaloons, and could not sell any because it was so expensive; that's the reason we don't made any more.

Q. 72. Did Mr. Florsheim see and know how the springs were put into those pantaloons?

A. No, sir; not in the first one what I made for a model for a patent. That other one was made about four months after that or longer.

Q. 73. Did you send that model to Washington—to the Patent Office?

A. Yes, sir.

Q. 74. Look on the drawing annexed to that patent (showing patent) and state if that is a copy of the drawing of the model.

A. Yes, sir.

Q. 75. Look upon that part of the drawing marked with the letter *c* and state whether that shows the springs contained in the pantaloon.

A. Yes, sir.

Q. 76. What kind of springs were they—single or continuing?

A. Continuous.

Q. 77. You stated in your examination yesterday that you thought the time you and Florsheim were in the public library examining

the English patent was about the middle of February, '79. Did you make any memorandum of the time?

A. I made no memorandum.

Q. 78. Might it not have been earlier in the month of February?

A. Maybe, but I made no memorandum, so I can't tell whether it was in the first time or the middle.

Q. 79. What do you mean by the first time?

A. On the first days of February.

Q. 80. Was there any plain margin on the springs of those garments you last mentioned?

(Objected to as leading.)

359 A Yes, sir.

Q. 81. Now, after you had been to the library, you say you made experiments at home. What family did you have at that time; who lived at home with you?

A. My wife and four children.

Q. 81. What is your eldest son's name?

A. Alex.

Q. 82. You also stated that Mr. Florsheim came there frequently just after you had been to the public library?

Question waived.

Q. 83. After you came from the public library and commenced experimenting with a continuous spring at home did Mr. Florsheim come to your house; and, if so, how often?

(Question objected to because the first part of it is leading.)
Question waived.

Q. 84. After you came from the public library did you see Mr. Florsheim?

(Question objected to as leading.)

A. Yes, sir.

Q. 85. Where did you see him?

A. I go with him from the library to his store on Wabash avenue and after I see him many times.

Q. 86. Did you see him at your house?

(Objected to as leading.)

A. Yes, sir.

Q. 87. When?

A. Must be in end of April or first days of May; 'twas Sunday, and I forget the first time he went there, as I made this model for overalls or pantaloons.

Q. 88. Did you have any conversation with him at your house on the subject of continuing springs?

A. Yes, sir.

360 Q. 89. State what it was—what you said and what he said about it.

A. He asked me how I made those continuing springs in the fab-

ric, in leather or cloth. He says he don't understand it, and want to see how I made it. I took a piece of leather, cut it in shape, made a double, and my oldest daughter, Matilda Schilling, sewed it; and then I take solid wire sticks or needles, put it in those tubes, and pushed it together in the press. I take a long piece wire spring, take out the needles, put in the springs back and forth so, from the top to the bottom, so that they connected from tube to tube, and fastened it at each end and leave a margin on—a plain margin.

Q. 90. How often did Mr. Florsheim come to your house during that time?

A. He comes a good many times. I can't say how many times.

Q. 91. Did you have conversation with him whenever he came? Did you and he talk together?

A. Yes, sir.

Q. 97. Were any of your family present at those conversations, or any of them; and, if so, who?

A. My oldest daughter, Matilda Schilling, and Alex. Schilling.

Q. 98. Was your wife ever present?

A. My wife was in the next room. She was not present in the same room.

Q. 99. Now, sir, did Mr. Florsheim, in any of those conversations, pretend or claim to you that he was the inventor of these continuing springs?

A. No, sir.

Q. 100. Did he, in any of those conversations, state when he first found out about the continuing springs; and what did he say, if anything, on that subject?

A. We never speak about this invention. He knowed that
361 I made it the first, since that time we went in the library. I made this experiment on this continuing springs, and Mr. Florsheim, he couldn't make any, as he don't understand, so he says.

Q. 101. Were you in partnership with Mr. Florsheim, in the manufacture of the different articles contained in these continuing springs, in the year 1879?

A. Yes, sir.

Q. 102. From February, 1879, to October, 1879, were you in the employ of Mr. Florsheim, working for him?

A. No, sir.

Recess here taken till 2 o'clock p. m. same day and place.

Met at 2 o'clock.

Present as before, and examination of GUSTAV SCHILLING resumed:

Q. 103. Did you see Mr. Ball (pointing to defendant) in the year 1879; and, if so, where and when?

A. I see Mr. Ball by Mr. Florsheim, in 1880, and in Mr. Florsheim's store, on Wabash avenue.

Q. 104. Do you recollect the month?

A. Pretty near.

Q. 105. What month was it?

A. It was about the end of June or first of July.

Q. 106. State what happened between you and Mr. Ball.

A. Mr. Ball, he wanted to buy our four patents.

Q. 107. State all the particulars, all that happened on that occasion.

A. Mr. Florsheim sent me a postal card—want to see me about those patents. I come in; Mr. Florsheim tell me there is a Yankee that want to buy these patents, and I asked him how much he want to pay for them. Mr. Florsheim answer me: I guess not much; couldn't you come in again to-morrow afternoon about 4
362 o'clock, and I tell this man that he come in. I come the next day at 4 o'clock to Mr. Florsheim, and Mr. Ball come in, too. We speak about these patents, and Mr. Florsheim showed him the papers on these four patents, and then Mr. Ball, he asked, How much you want for them? I ask him five thousand dollars for these four patents, and so Mr. Ball offered three or four hundred, I don't know exactly, and so I say, No; I wouldn't sell it for such a price. Mr. Ball asked me where I live.

Q. 108. Where did you see Mr. Ball again after that?

A. The next day, in my house.

Q. 109. State what happened then.

A. He asked me if I had some springs on hand for corsets. I say, Yes. He ask me if he can see one, and I showed him them springs, and then he ask me how I sell them. I say fifty cents apiece. He give me fifty cents and take one.

Q. 110. What did he do with that, that you sold him for fifty cents?

A. He take it along.

Q. 111. Look at the article now presented you, and state what kind of springs you sold Mr. Ball on that occasion.

A. Just the same springs what I got here in my hand.

Q. 112. Was it a single or continuing spring?

A. A continuing spring.

(Counsel for defendant here offered in evidence the article last spoken of, marked "Defendant's Exhibit No. 7".)

Q. 113. Well, sir, did you see Mr. Ball again after that; and, if so, when and how soon after?

A. The next day.

Q. 114. Where?

A. In my house.

363 Q. 115. What was done between you on that occasion?

A. Mr. Ball ask me if I got some more of this kind of corset springs; he give that to a lady and try it, and this lady tell him it is a pretty good thing, and he want two springs more of that. I give him two springs; he give me a dollar and take it along.

Q. 116. Was anything said by you to Mr. Ball, at that time, as to how those springs were made?

A. We talk not much about it; but he says that is a pretty good thing; that is a good idea.

Q. 117. Complainants introduced in this case as their Exhibit

"A" the patent to Simon Florsheim and Thomas H. Ball, February 22, 1881, No. 238,100, for "improvement in corsets." The specification forming part of that patent appears to have been filed August 12, 1880. How long before they were filed was this last interview between you and Mr. Ball, when you sold him the two springs?

A. End of June or the first days of July, 1880.

Q. 118. How long was it from the first day of July, 1880, to the 12th day of August, 1880—how many weeks?

A. About six weeks.

Q. 119. Did you and Mr. Florsheim ever start a factory to make springs for gaiters, in partnership?

A. Yes, sir.

Q. 120. When?

A. 1879, in October.

Q. 121. How long did it last?

A. Three weeks.

Q. 122. Did you employ any hands in that factory?

A. Yes, sir.

Q. 123. Were any springs made there?

A. We made those gaiter springs.

Q. 123. What kind of springs were they, single or continuous?

364 A. Continuous.

Q. 124. Do you remember the names of any of the hands there? If so, state their names.

A. Yes, sir; my daughter, Matilda Schilling, and August Nagel and another boy; I forget his name.

Q. 125. During that time did Mr. Florsheim come there?

A. Yes, sir; he comes sometimes in the week.

Q 126. How many times in the week, usually?

A. About three or four times a week.

Q. 127. Did he, on those occasions or any of them, make inquiries of you as to how you constructed those springs; if so, what were they; what did he say?

A. Mr. Florsheim's brother, August Florsheim, he went with us in partnership in this gaiter springs factory. Mr. Simon Florsheim say to me, Give my brother August instructions and learn him. He should help it in the business. I don't understand it myself that he can't spend his time from his business.

Q. 128. Was that conversation which you have now stated in the presence or hearing of the hands you have named or any of them?

A. No, sir; I don't remember about it.

Q. 129. I hand you a somewhat dilapidated corset and ask you to look at it. What is that? Give its history.

A. It's the first corset what I made with this springs from the hip to the arm. I sent it to Boston to Woodward, patent agent, and sent after that four more. That was in 1880; the first one in April and the other ones in May, and this one I get back December, 1880, and my daughter wear it.

Q. 130. Was that while you were in partnership with Mr. Florsheim?

A. No, sir.

365 Q. 131. Did you tell Mr. Florsheim anything about your sending that to Boston; and, if so, what did you tell him, and what did he say?

A. Yes, sir; I tell him I get so many letters from Woodward that I got a patent on corsets, and he wanted a sample, and I tell Mr. Florsheim that I made the hip pieces another way than what we got in the original patent, and he ask me how. I say, Let the springs go right through from the hip to the arm, and he says, I believe, myself, that's better.

Q. 132. When did you send that corset down to Boston?

A. 1880, in April.

Q. 133. Does that contain the continuing spring (referring to corset)?

A. Yes, sir.

(Defendant's counsel here offers the said corset in evidence, and the same is marked "Defendant's Exhibit No. 8.")

Cross-examination of the witness SCHILLING by L. L. COBURN, Esq.:

X Q. 1. Mr. Schilling, do you believe in a God?

A. Yes, sir.

X Q. 2. Do you understand the force and sanctity of an oath and the penalties for swearing falsely?

A. Yes; I know it.

X Q. 3. You had an interference in the Patent Office between an application of yours for a patent and the patents involved in this suit, did you not?

A. Yes, sir.

X Q. 4. You testified in that interference case, didn't you, under oath?

A. Yes, sir.

X Q. 5. When did you make your application for a patent that was in that interference?

366 A. I made it in 1881. I guess 'twas in October.

X Q. 6. When did you swear in that interference that you made the invention that was the subject of that interference?

(Objected to as incompetent.)

A. So much I understand that you ask me what I understand, that in what I made my invention. Is it right?

X Q. 7. I ask you when you then swore you made your invention?

A. I think that I have a right to do that, that I made the first continuing springs; that's what I understand that. I don't know.

X Q. 8. When did you swear at that time that you made the first continuing springs?

(Objected to as incompetent.)

A. When I swear that, that is as I made my application.

X Q. 9. Did you not then swear—I mean did you not swear at the time that you testified in the interference suit that you made the first continuous springs in April or May, 1879, and that you never saw or knew of any continuous springs before that time?

(Objected to as incompetent.)

A. Maybe I swear that, but I remember after the time, and thought application and filed it means just the same thing, and so I might be mistaken in the time, and I could remember what time the application was made, and I thought when patent is filed it means application. That overall patent was filed on 4th of March and the corset on the 10th of March, '79. Now, after that, I heard that is a mistake, that patent filed and application is not the same; and then it takes when is made an application three, four, and five weeks, and then when I go back on that time then must it be in the first part of February, or middle of February, I made the first continuing springs.

367 Further taking of testimony is here adjourned till 10 o'clock a. m., Friday, December 29th, 1882, at same place.

FRIDAY, *December 29th*, 1882.

Met pursuant to adjournment.
Present: As before.

Cross-examination of GUSTAV SCHILLING resumed:

X Q. 10. When did you first know Mr. Florsheim?
A. 1878.
X Q. 11. What time in 1878?
A. 'Twas about May, or so, how long I may be mistaken; since 1877; 1877 I first come there.
X Q. 12. Then you first knew him in 1877, did you?
A. 1877. Yes, sir.
X Q. 13. What time in 1877?
A. About in May or June.
X Q. 14. Did you have any business with him then?
A. Yes, sir. With the firm of Gimbel & Florsheim.
X Q. 15. What business did you have with the firm in May or June, 1877?
A. I had a contract with the firm of Gimbel & Florsheim for forty dozen gloves and mits.
X Q. 16. When did you make that contract?
A. In the same time I come the first time.
X Q. 17. When was that?
A. May or June.
X Q. 18. What year?
A. 1877.
X Q. 19. How do you know?
A. The first year I made these gloves what I made for this firm—the gloves with buttons and loops.
X Q. 20. How do you know 'twas in 1877?

368 A. I know it that I made in 1878 the gloves with springs.

X Q. 21. How do you know that you made the gloves with springs in 1878?

A. I take in 1879 a patent out for all those gloves.

X Q. 22. You swore when you took that patent out that you was the inventor of gloves with springs, didn't you?

A. Yes, sir.

X Q. 23. Were you the inventor?

A. I think that I the inventor was, because I see no gloves with springs before.

X Q. 24. Before when?

A. Before 1878, when I made them myself.

X Q. 25. Do you now swear that you invented the gloves with springs in 1878, and that you never saw any gloves with springs before you made them in 1878?

A. Yes, sir. I say yes, sir. I mean no, sir. I never see springs on gloves before I made them myself in 1878.

X Q. 26. You never saw any springs on gloves in Germany, did you, before you came to this country?

A. No, sir.

X Q. 27. How do you know that you first sold gloves or mits to Gimbel & Florsheim in May or June, 1877?

A. I got at that time a small business, and I knows every man at that time what I sell him.

X Q. 28. May you not be mistaken when you first sold gloves to this firm? May it not have been in the spring of 1878 instead of 1877?

A. I know that on that '79 I take the patent out; '78 I made the first spring on the gloves, and the year before made the gloves with buttons. It must be '77.

X Q. 29. When, in 1878, did you make the first gloves with springs on them?

369 A. The first time of '78—January—I made some custom gloves for a policeman; the first springs I made.

X Q. 30. How do you know it was in January, 1878?

A. I knowed it. That man he bothers me so much that he want other fastener on gloves; he says rubber won't wear. I come to this idea and make him springs in them so.

X Q. 31. What was the policeman's name?

A. Can't tell. I got so many customers on the police.

X Q. 32. Where was his beat at that time?

A. Halsted street; North Halsted street.

X Q. 33. Might it not have been in March that you made those first gloves with springs on them for the policeman?

A. Policeman was not buying, in March, any winter gloves.

X Q. 34. Why not?

A. That's a question I can't answer; but I never made a policeman any winter gloves in March.

X Q. 35. Did you ever make any in December?

A. Yes, sir.

X Q. 36. May you not have made these for that policeman in December?

A. There was no time when they made fixings that they call coil springs.

X Q. 37. How do you know it was not in December, 1878, that you made these gloves with springs on them for the policeman?

A. I made the whole summer springs on gloves in '78 for jobbers.

X Q. 38. What jobbers?

A. Gimbel & Florsheim, Wolff Bros., etc.

X Q. 39. How do you know this was in 1878?

A. I see four or five weeks ago a bill of Wolff Bros. for gloves.

370 X Q. 40. What was that bill for?

A. 'Twas for gloves.

X Q. 41. When did you make your application for a patent for gloves with springs on them?

A. 1879—January. So much I remember.

X Q. 42. Do you remember definitely about this?

A. I can't tell; not exactly. It must have been in the first part of January or the middle. I think it was in the middle of January.

X Q. 43. What makes you guess so?

A. I come the first days in January with this pair of custom gloves what I made in the railroad ticket office and showed this to Mr. Florsheim. A few days after I made a model for a patent, and me go to Mr. Lotz and made an application for a patent.

X Q. 44. Why did you take that pair of gloves and show them to Mr. Florsheim?

A. I got them just in my pocket and pass the store and step in and showed him them gloves.

X Q. 45. Why did you show them to him?

A. I can't tell not why. It was mostly for fun and to show them. I got one glove on my hand, and I remember Mr. Florsheim said those springs was a good thing on those gloves, and he says, Yes; that's a good idea. I ask him about Wolff Bros.; that they want to go with a patent in those gloves with those springs—in partnership—and Mr. Florsheim ask me if I want take him for a partner, and I say, Yes; when you pay the expenses. He say, Yes. That's all.

X Q. 46. This was on New Year's Day, was it?

A. No, sir.

X Q. 47. When was it?

A. Third or fourth or fifth day after New Year.

X Q. 48. What makes you remember that time?

371 A. That man in the ticket office, he want his gloves New Year and I got no time, and that's the reason he got it a few days after—four or five days; I don't know.

X Q. 49. You were taking the gloves to the man in the ticket office at the time you showed them to Mr. Florsheim, were you?

A. Yes, sir.

X Q. 50. What was this man's name?

A. I can't keep all the names in my head what I make gloves for.

X Q. 51. You don't know, do you?

A. I don't know.

X Q. 52. What ticket office was he in?

A. Grand Trunk

X Q. 53. Where was the office that you took them to?

A. Corner Clark and Washington.

X Q. 54. He was ticket agent, was he, in the Grand Trunk ticket office?

A. I don't know if he was agent or not.

X Q. 55. What do you know about him?

A. Well, he made other men buy gloves, and he showed them then, and he says he want pair like those, and I made them.

X Q. 56. Do you know that he was employed in that ticket office?

A. I can't tell that. I see him at his desk. I can't tell if he is employed or not.

X Q. 57. Then he had a desk in that office, did he?

A. So much I see; yes.

X Q. 58. After you made the application for a patent for gloves at Mr. Lotz' office when did you next hear from it?

A. I can't tell that.

X Q. 59. Can you tell anything more about it?

372 A. After that we made all these applications on these four patents. Mr. Florsheim tell me that glove patent must be appealed, and cost one hundred and fifty dollars when it is allowed; when not, then nothing.

X Q. 60. When did he tell you that?

A. Oh, it was a long time after that. I don't know how many months it is after that.

X Q. 61. Can you tell about how many months?

A. No, sir.

X Q. 62. Have you no recollection about when it was?

—. No, sir; we got this time so many conversations about these four patents that I can tell not the time.

X Q. 63. Was that the first time you heard anything about the application for the glove patent after you made it at Mr. Lotz' office?

A. Not in Mr. Lotz' office. Mr. Florsheim tell me that in the store.

X Q. 64. Was that the first time you heard anything about it after it was made?

A. Yes, sir.

X Q. 65. Didn't Mr. Lotz tell you that the application for a glove patent had been rejected?

A. I come once there, but it's a long time ago since that time. I went into Lotz' office and he tell me that, or I ask him for it.

X Q. 66. What did he say about it?

A. He say well, he can't help it.

X Q. 67. Can't help what?

A. That it must be appealed.

X Q. 68. Why must it be appealed?

A. I don't know. I don't acquainted in the patent business.

X Q. 69. Did Mr. Lotz tell you that there was any objection made to allowing a patent?

372½ A. He says, Well, that has come back and we have to appeal it.

X Q. 70. When did he say this?

A. I can't tell, not the time.

X Q. 71. About when, as near as you can tell?

A. It was in warm weather. I guess 'twas in the summer time.

X Q. 72. Did he tell you why it had come back?

A. No, sir.

X Q. 73. Did he show you any letter from the Commissioner of Patents about it?

A. No, sir.

(Counsel for defendant objected to the foregoing evidence as not being proper cross-examination.)

X Q. 74. Did you and Mr. Florsheim go to Mr. Lotz' office together some time in April or May, 1879, to see about your application for a glove patent?

A. Not that I can remember.

X Q. 75. Did you and Mr. Florsheim go from Mr. Lotz' office to the public library to see the English patent?

A. No, sir.

X Q. 76. Where did you go from?

A. From Gimbel & Florsheim's store.

X Q. 77. Did you not swear in your interference suit that you and Mr. Florsheim went to the public library to see this English patent from Mr. Lotz' office about the middle of last April, 1879?

(Objected to as incompetent.)

A. Not from Lotz' office and not in April.

X Q. 78. Was not this question asked you: "Q. 60. Now give, as near as you can, the date when this occurred at the public library. And did you not answer, Ans. 'I cannot tell you any date, you know. I don't remember that, but it was in the month of April?'"

(Same objection.)

372¾ A. Yes, sir; I say so, but after find out that I was in great mistaken.

X Q. 79. Was not this question asked you: "(Q. 61.) What year?" And did you not answer: "(A.) 1879, about the middle or last of April. I could not tell, not exactly?"

(Defendant's counsel objects to all the evidence offered as to what the witness swore to on a former trial on the interference examination as incompetent. This objection, by consent, to apply to all future testimony of this character hereafter offered.)

A. Yes, sir; I answer that, but I was at that time mistaken in the time. I never see a copy about these four patents, and that's the reason I may be mistaken in time.

X Q. 80. Did you not swear at that time that it was after you and Mr. Florsheim made the application for a patent for overalls; that you made the application for overalls in March or first of April, and

you knew it was after that that you went to the public library to see the English patent?

A. Yes, sir; I swear it that time; but after I think over and ask Mr. Zimmerman if "application" and "filed," if it is not the same word or mean the same, and he says, No, you are mistaken; and before I think over about these overalls; that I made these overalls with continuing springs, and so that time must be come out in the first days of February or middle of February. I didn't know before what "filed" means, and I couldn't talk very plain English, and couldn't read English at all, and I was mistaken with this patent application on "filed." Filed or application was my mistaken. I never see before a copy on that four patents; that I forgot the days when we made this application; then I see the copies since last summer, and so I find it out that I made in the time the mistake.

373 X Q. 81. Was not this question also asked you when you testified before: "(C. Q. 45.) Then some time in April, 1879, you say that you went to the public library with Mr. Florsheim?" And did you not answer: "(A.) Yes, sir?"

A. I answered that time; yes; but I say before that I am mistaken in the time; after that I see the copies. I cannot be in April in the library when I made in the middle of February continuing springs. So, as the patents say, it is filed the 4th of March, 1879, and so much, I understand, it takes three, four, or five weeks before a patent get filed, when is made patent application.

X Q. 82. Did you not swear when you testified before as follows: "(C. Q. 46.) And he read therefrom a book to you? (A.) Yes, sir; yes, sir. (C. Q. 47.) And some time after that you first had the idea that you could put in your wire springs without cutting it off at the ends? (A.) At the ends, continuous springs. (C. Q. 48.) And that was the first you had any idea about putting in continuous springs? (A.) That is the first time. (C. Q. 49.) Now, you don't know just how long after April, 1879, that you made the first continuous springs, do you? (A.) Oh, it was in April, I guess."

A. I got this question before, and I guess that I can't answer it much more. I say so that time, but the reason is I couldn't remember, and I didn't know the days when this application is made on these patents, on this overall patent. After I find it out on the copies and in the machine shop where we got made the press.

Recess here taken until 2 p. m., same day and place.

Met at 2 o'clock p. m.

Present as before, and cross-examination of GUSTAV SCHILLING resumed.

374 X Q. 83. When did you make your application for a patent for gaiters?

A. So much I remember it was in January, 1879.

X Q. 84. You swore that you were the inventor of that patent, didn't you?

A. Yes, sir.

X Q. 85. When did you make the invention?
A. Make me a pair of shoes myself in '78.
X Q. 86. When?
A. Must be about in the summer time.
X Q. 87. Who made up the shoes?
A. I bought them shoes. Them shoes was laces in, and I cut them eyelets out and made me springs in—wire springs.
X Q. 88. Who sewed the springs into the shoes?
A. I sew it in myself.
X Q. 89. Who made the first shoes with springs of this kind in them after that, and when?
A. We bought the uppers—Mr. Florsheim bought them; they was cut. I take them home and sew them myself. Must be in January, in 1879, before we made this application for this gaiters patent.
X Q. 90. When were the next shoes made, and by whom?
A. I don't know; I did not make any.
X Q. 91. Well, what did you next do about this gaiter patent, after you made the application?
A. I make sometimes these gloves, and when this application was made I haven't got anything to do with them any more.
X Q. 92. Didn't you do anything after that about making gaiters with this kind of spring; if so, when first, and what?
A. I made gaiter springs about in May—some for samples.
375 X Q. 93. Then you made no gaiter springs between January and May, 1879, did you?
A. Not before I got this press.
X Q. 94. When did you get the press?
A. So much I remember it was in the middle of April.
X Q. 95. You had no press before then, did you?
A. Yes, sir; Mr. Mason made me one, but it won't work; I can't use it.
X Q. 96. Did you use it?
A. No, sir.
X Q. 97. Then you had no press that you used before the middle of April, 1879, did you?
A. No, sir.
X Q. 98. When did you get the press that you couldn't use of Mr. Mason?
A. The end of February or the first time of March, 1879.
X Q. 99. What Mason was it.
A. He keep a machine shop on Milwaukee avenue viaduct there.
X Q. 100. You don't remember his first name, do you?
A. No; I don't remember.
X Q. 101. Who did you get your machine of that worked?
A. From Mr. Gruendel.
X Q. 102. Who paid for it?
A. Mr. Florsheim.
X Q. 103. Who paid for the Mason machine?
A. I pay nothing. He says, Will it work? He tell me the price, and if it don't I don't want anything.

X Q. 104. Did you keep the machine?

A. Kept the machine from the time I got it in my house till October.

X Q. 105. What did you do with it then?

376 A. That time as we go in partnership with these gaiter springs, and I carried it over in Madison street, in the shop where we were working.

X Q. 106. What became of it?

A. We used it for these gaiter springs; push the fabric together.

X Q. 107. Why didn't you pay for it if you used it?

A. Nobody asked me anything about it.

X Q. 108. Didn't you make gaiter springs with continuous coiled wire directly after you saw the English patent in the public library?

A. Yes, sir; I made continuous springs—gaiter springs.

X Q. 109. Did you make them immediately after you saw the British patent in the public library?

A. Yes, sir.

X Q. 110. But you didn't make any, you said, after you applied for your gaiter patent until May. Is that wrong?

A. No, sir; I made all the springs. What I made was good, in so far we got very bad wire—rotten wire.

X Q. 111. You said a little while ago that you made no gaiter springs after you applied for your gaiter patent, in January, until the next May. Is that correct?

A. Yes, sir. I made no gaiter springs; made springs on garters, gloves, and different kinds of experiment.

X Q. 112. You have just said that you made gaiter springs with continuous springs in them immediately after you saw the English patent in the public library. Is that correct?

A. Yes; but not in that time before I got a press. That must be—that time—in last part of April or first of May. I made some samples.

X Q. 113. Did you not swear in the interference suit that
377 you made the first continuous springs right away after seeing the British patent in the public library that you ever made for gaiter springs?

A. Yes, sir. I made the continuing springs since that time that Mr. Florsheim read me that in the British patent book; but, if I made gaiter springs—that can't be. I had no press; by hand is hard work. I never made any—no gaiter springs.

X Q. 114. Did you not swear in the interference suit as follows? "(C. Q. 50.) Now, who made the machine? (A.) Mr. Gruendel, on Canal street. (C. Q. 52.) That was the first machine that was made? (A.) That was the first machine that was made. (C. Q. 53.) What was paid for that machine? (A.) Florsheim."

A. Yes; I swear that.

X Q. 115. Is it true that that was the first machine that was made?

A. 'Twas the first machine what was made that I can use, but

there was other one—was made by Mr. Mason. 'Twas of no use to take notice from.

X Q. 116. Did you not swear in the interference suit? "(C. Q. 70.) When did you say that you made the first corset with continuous spring? (A.) It was in April, the last time of April I try it. (C. Q. 71.) April of what year? (A.) 1879. (C. Q. 72.) You said before that you made the first corset in the fall. (A.) Oh, you mean corsets? (C. Q. 73.) I said the first corset. (A.) Oh, the first corset! Oh, that is other things. I made the first corset—the first continuous springs. I made this in November—the first part of November—in one part of the corset—in the back part of the corset. (C. Q. 74.) What year? (A.) '79. (C. Q. 75.) And you made an application for a patent on that corset? (A.) Yes, sir. (C. Q. 76.) But you did not claim the continuous spring in the back, did you, in that application? (A.) No, sir. I thought it was no use."

378 (Counsel for defendant objects to the asking of seven questions in one as tending to confuse the witness and rendering it impossible for him or any other witness to understand the question, he not having before him the testimony he gave in the interference case, taken over a year ago, and counsel asks the examiner in propounding the question asked to the witness to read over to and ask him each of the seven questions distinctly and separately, so that the witness may answer understandingly.)

A. May be or not. I don't know. I know I made no corsets in April. It must be a mistake in the year. I made corsets for samples, which I sent to Boston. That was in '80. I made the first springs in the fall of '79 that I made the application for. The back part in the corset is what I made in the fall in '79.

X Q. 117. Did you make the first corset that you made with springs or the first springs for corsets that you ever made in the fall of 1879?

A. I must ask what kind of springs—continuing or single.

X Q. 118. Either kind.

A. Made the first corset first part of January, 1879, for my wife.

X Q. 119. What kind of springs did it have—single or continuous.

A. Single.

X Q. 120. When did you make the first corset with continuous springs?

A. I made in the summer time different kind of work with those continuing springs. Maybe 'twas a corset between. I don't know.

X Q. 121. When can you swear to the first corset that you made with continuous springs?

379 A. I made in the fall the first piece in the back of a corset for experiment, and after, in October or November, I sent one for a model to Washington; 'twas in 1879.

X Q. 122. Did you make any corset with a continuous spring in it before that? If so, when?

A. Not that I can remember.

X Q. 123. Did you make anything with continuous springs after

you saw the British patent in the public library and before you got the Gruendel machine to make it with? If so, what was it?

A. Yes, sir; made experiments with soft kid leather or any kind of soft cloth; pushed it together by hand.

X Q. 124. Did you make anything besides these experimental pieces? If so, what was it?

A. I made for this model those overalls that we send to Washington. I made other different kinds of work—gloves, etc.

X Q. 125. What besides gloves?

A. Nothing. I can't keep it all in my head now what I made that time.

X Q. 126. But you made no corsets, did you, during that time with continuous springs that you can swear to?

A. No, sir; I got no use for corsets that time, and I could swear to that point. I don't believe it. It was all a mistake. I can swear that I made no corsets with continuing springs in April, 1879.

X Q. 127. Did you make any corsets with continuous springs before April, 1879?

A. No, sir.

X Q. 128. Where did you get the overalls that you put the continuous spring in for a model, and when?

A. Mr. Florsheim bought them; must be in February, 1879.

X Q. 129. Did you and Mr. Florsheim make an application for a patent for a corset?

A. Yes, sir.

380 X Q. 130. When?

A. Must be in February, 1879.

X Q. 131. Who made the model?

A. I made the springs and my wife help me to sew it in.

X Q. 132. Did it have continuous springs?

A. No, sir.

X Q. 133. You are sure of that, are you?

A. Yes, sir. I made it myself, and I know what I made.

X Q. 134. Why didn't you make continuous springs in that corset?

A. That corset must be made in the first part of February or last of January. It's the reason that we wasn't at that time in the library before, and if we went there before I made continuings.

X Q. 135. Do you mean to say that you did make the spring in that corset continuous?

A. I made not continuing springs in that corset.

X Q 136. Then it was made, was it, before you went to the public library?

A. It was made before we was in the public library.

X Q. 137. You swore to that invention, didn't you, when you made the application for the patent with Mr. Florsheim?

A. Yes, sir.

X Q. 138. When did you swear to it?

A. I can say not the day.

X Q. 139. Wasn't it at the time the application was made, about March 10, 1879?

A. After this time, after the application is filed, I could made not an application in the same time when the patent is filed. It must be a long time before that we made this application.

X Q. 140. How long do you think?

381 A. I can't tell. I made a corset and give it to Mr. Florsheim, and he tell me he want to show that in the stores, what they think about it, and I don't know how long time he keep it; but after he says, Come on, now; we want to make this application. I don't know how it is.

X Q. 141. Who obtained these patents for you and Mr. Florsheim?

A. Mr. Lotz.

X Q. 142. Did you not state to Mr. Lotz that the continuous spring with the margin was a good idea of Mr. Florsheim, and did you not so state in the presence of Mr. Florsheim?

(Question objected to on the ground that it stated neither time nor place when or where such alleged conversation occurred.)

A. No, sir.

X Q. 143. Did you not so state to Mr. Lotz at his office, in Chicago, when you were there making your application for a patent, either for the corset or the overall?

A. No, sir.

X Q. 144. Was not the fact that Mr. Florsheim was the sole inventor of the continuous coiled-wire spring fabric with a margin the reason why it was not claimed in the joint patents which you and he applied for together, and did you not so understand it at the time?

A. No, sir. He don't understand it; made continuing springs not before I showed him that.

Further taking of testimony is here adjourned until 9.30 o'clock a. m. Tuesday, January 2, 1883.

JOHN C. MACGREGOR,
Notary Public.

382 TUESDAY, *January* 2, 1883.

Met pursuant to adjournment.

Present as before, and cross-examination of GUSTAV SCHILLING resumed.

X Q. 145. You have stated you were a party to an interference with Simon Florsheim. When did you file the application for a patent for corsets on which that interference was declared, as near as you can recollect?

A. I don't understand that question.

X Q. 146. You had an interference suit, didn't you?

A. Yes, sir.

X Q. 147. When did you file the application for a patent that that interference suit was about?

A. This application was in 1881, and of September or first time of October.

X Q. 148. Do you remember when it was filed in the Patent Office?

A. My attorney—he never says a word to me. I don't know.

Counsel for complainants here offers in evidence a copy of the preliminary statement entitled "In the matter of the interference in the United States Patent Office between the application of Gustav Schilling, filed November 19th, 1881, and the patent of Simon Florsheim, No. 238,100, dated February 22, 1881, improvement in corsets," which was as follows:

Preliminary Statement of Gustav Schilling.

STATE OF ILLINOIS, }
County of Cook, } ss:

Gustav Schilling, being duly sworn, deposes and says that he is one of the parties named above, and that he believes himself to be the original and first inventor of the invention described in his application, filed November 19, 1881, and that he is the original and first inventor of the invention upon which the Patent Office
383 has declared an interference on certain issues or counts in the following words, to wit:

"1st. In a corset, an elastic section composed of two thicknesses of cloth or other material, having tubes, in combination with the spiral metal springs enclosed by such tubes and arranged in groups to regulate the elasticity of the section, such groups being all composed of a single continuous spring passed back and forth through the tubes and secured at its ends.

"2d. An elastic section or gore composed of material having tubes extending only part way across the same, and plain margins outside of said tubes, and spiral metal springs arranged in groups in such tubes, the springs of the several groups being made continuous.

"3d. A corset laced at the back and having the elastic side sections extending from under the arms down over the hips, each of such sections being composed of material having puckered tubes extending part way across the same, and plain margins outside of said tubes, and spiral metal springs arranged in groups and made continuous."

"Deponent says that he considered the invention set forth in claims 1 and 2 in the month of March or April, 1879, fully matured the same in his mind, explained it to others, and made a sample, which he used for a Patent Office model in an application for a patent filed in the United States Patent Office November 6, 1879, and that said model was filed with the application.

That he conceived the invention set forth in claim 3 in the month of January, 1880, fully matured the same in his mind, and explained it to others.

That in the month of February or March, 1880, he made several corsets, each embracing every detail of construction set forth in his

specification, and claimed that they were seen and examined
384 by divers persons; that in the month of March, 1880, he had several corsets, each embracing every detail of construction set forth in his specification and claims, made by a manufacturing firm in the city of Chicago, and that the first of these was made by the foreman of that firm in person, acting under deponent's instructions.

That afterward, in April or May, 1880, deponent himself made four additional corsets, each likewise embracing every detail of construction set forth in his specification and claims.

That these last-named corsets were sent to a certain firm in Boston, in the State of Massachusetts, and that one of them was returned to deponent on the 30th day of November, 1880, and given by him to his daughter, who wore it until the month of September, 1881.

That in the month of June, 1880, deponent made a corset, likewise embracing every detail of construction set forth in his specification and claims, for the wife of one of his friends, and that he explained it to his said friend and gave it to him for his wife, who wore it for several months and then gave it to a servant.

(Signed) GUSTAV SCHILLING.

Sworn to and subscribed before me this 24th day of January, A. D. 1882.

[SEAL.] CHARLES A. LINTHICUM,
Notary Public.

X Q. 149. Did you make this affidavit that has just been read in the interference suit?

A. I made this affidavit, but I am the inventor on this corset springs. In the first part of January, 1879, I made this invention for springs. In the first part of February or middle of February, 1879, Mr. Florsheim take me in the public library and he read me from the English patent book that Miller & Son, 1866, made this elastic springs with continuing rubber cords, and so I get this
385 idea. I made experiment with spiral wire springs, and I call it my own invention.

(Witness here states his answer was not understood, and states as follows:)

I invented the springs on corsets in the first part of January, 1870, and made a model for patent at end of January, and the first part of February to middle of February—between that time—Mr. Florsheim take me to the public library and get the English patent book and read me from that English patent from 1866, Miller & Son—that is, that Miller & Son made these elastic springs in shoes or gaiters and corsets, and that they use for these elastic rubber cord and made it continuing; and this gives me this idea. I made it in the same way—continuings—with spiral wire springs. I go home and make this experiment, and since that time every work I made I use only continuing springs.

X Q. 150. You made the affidavit just read to you, didn't you, in the interference suit?

A. I made the same affidavit, but I was mistaken in time.

X Q. 151. After the testimony was taken in that interference suit did you not sign a paper stating that Florsheim was the first inventor and requesting that the interference be dissolved?

(Objected to on the ground that if any such paper exists it should be produced, and that parol evidence of its contents is not at present admissible.)

A. No, sir; I never signed a paper that Florsheim is the inventor.

X Q. 152. Did you not sign a paper admitting priority to Florsheim and requesting that the interference be dissolved in his favor?

(Same objection as to the last question.)

A. I don't know anything about such a paper.

386 X Q. 153. Do you know how the interference was decided? If so, state.

A. I can't understand what decided is.

X Q. 154. How did it end—in whose favor?

(Objected to on the ground that if that interference proceeding was ever terminated by a decision this is not the best evidence of that fact.)

A. I signed a paper to Periolat that he should pay the costs, but he couldn't pay the costs any more. I can't tell. Dyrenforth tell me it cost about three or four hundred dollars more, and Periolat is not willing to pay any more. That's all I know.

X Q. 155. Then you don't know that that inference [interference] was decided against you, do you?

A. No, sir.

X Q. 156. Your attorney, Mr. Dyrenforth, never told you so, did he?

A. He tell me that Periolat couldn't pay any more. That's all I know about it.

X Q. 157. He never told you that the interference was decided against you, did he?

A. No, sir; he says he could not send the testimony to Washington; it must be printed, and there's no money there. That's all I know.

X Q. 158. Did he send the testimony to Washington?

A. I don't know.

X Q. 159. Mr. Florsheim took testimony in that suit, did he not?

A. Yes, sir.

X Q. 160. He told his dates of invention in that testimony, didn't he?

A. Yes, sir.

387 X Q. 161. Since he told his dates of invention you have concluded that you swore falsely in your preliminary statement and also in your testimony or was then mistaken, haven't you?

(The fore part of above question is objected to as imputing the crime of perjury to the witness, and counsel for the defendant asks the examiner to instruct the witness that as to that portion of the question he is not bound to answer.)

Examiner reads that latter part of objection to witness again and repeats verbally the counsel's objection as instruction to the witness that he is not bound to answer that he swore falsely.

A. I can't answer that question. I don't need to swear falsely; but I say in the interference suit and in this suit what I speak is true, except that I was mistaken in time. That's all I can answer.

X Q. 162. You know, do you, that you swore differently in the interference suit from what you have sworn in this suit?

By counsel for defendant: If the examiner will explain to the witness what differently means he may be able to answer it.

A. So much I know not, except different in time.

X Q. 163. You swore in your preliminary statement that you conceived the invention in claim 3, which reads as follows: "3d. A corset laced at the back and having the elastic side sections extending from under the arms down over the hips, each of such sections being composed of material having puckered tubes extending part way across the same, and plain margins outside of said tubes, and spiral metal springs arranged in groups and made continuous," in the month of January, 1880. When do you now swear that you conceived the invention described in this claim?

A. I don't know what I shall answer on that question. I made springs lacing in the back part in April. I made this sample
388 for Boston. I made springs in back part, for lacing in, in January. I made springs for corset on the side from the hip to the arm. I can swear I have never seen a corset like this from the hip to the arm. I made these in 1880. I never see corset before what made the springs from hip to arm.

X Q. 164. When did you first see corsets or a corset laced in the back and having the elastic side sections extending from under the arms down over the hips, each of such sections being composed of material having puckered tubes extending part way across the same, and plain margins outside of said tubes, and spiral metal springs arranged in groups and made continuous. When did you first see such a corset?

A. Not before I made — myself.

X Q. 165. When?

A. 1880.

X Q. 166. What month?

A. I can't tell exactly; some time in the summer time, when I made experiments on corsets.

X Q. 167. Can you tell about the month?

A. It must be in that time, as I sent the last one to Boston in June, 1880.

X Q. 168. When did you first think of making a corset of this kind?

A. That time as I sent the first sample to Boston—in April, 1880.

X Q. 169. Did the first sample you sent to Boston—the one you sent in April, 1880—have lacing in the back and elastic side sections extending from under the arms down over the hips, each of such sections being composed of material having puckered tubes extending part way across the same, and plain margins outside of said tubes, and spiral metal springs arranged in groups and made continuous?

A. The first sample—what I sent to Boston—is with springs
389 on the side from the hip to the arm, continuing springs and plain margin, and in the back part was no laces in. There was springs in, too—continuing springs with plain margin.

Recess here taken until 2 o'clock p. m., same day and place.

Met at 2 o'clock p. m.

Present: As before.

Cross-examination of GUSTAV SCHILLING resumed:

X Q. 170. When did you first go to a wholesole house to get some corsets made?

A. It was in April, 1880.

X Q. 171. What house was that?

A. Gage Brothers.

X Q. 172. Who was the foreman that you talked with there?

A. Mr. Downs.

X Q. 173. You took there, didn't you, some pieces or elastic sections to be laced into the backs of corsets?

A. Yes, sir; 'twas in January or February, 1880, I showed him these.

X Q. 174. Didn't Mr. Downs tell you that he thought it would be better to have these pieces sewed into the backs of the corsets instead of being laced in, as you intended them?

A. We talk about that. I sew them in before he tell me that. It was no news; I knew all about it.

X Q. 175. Didn't he make the first corset that was made with these sections sewed in the back of the corset under your directions, as you swore in your preliminary statement in the interference suit?

A. Yes, sir; back pieces and side pieces.

X Q. 176. Then you hadn't made one yourself before he talked with you about it, had you?

A. I made two myself in '79—one for my wife and one for a model.

390 X. Q. 177. When did you first have the idea of making a corset like the corset Mr. Downs made for you in April, 1880?

A. A long time before.

X Q. 178. How long?

A. Pretty near six or eight months before.

X Q. 179. You swore in your preliminary statement, in the interference suit, that you first had the idea of making a corset like that in January, 1880. Were you then mistaken about it?

A. Maybe I said so; my idea is different. I thought some long time over that—how it can be the best way to put in those springs, and which way.

X Q. 180. Are you sure that the first corset that you had made in April, 1880, had these elastic sections in the sides, under the arms, extending from the arms down over the hips, the same as the corset that you made in June, 1880?

A. Yes, sir.

Redirect examination:

R. D. Q. 1. You say, in answer to question put by complainants' counsel, that you swore when you got your patent, or made your application, that you were the inventor of the continuing springs. Explain fully what you meant by being the inventor, and in what your invention did actually consist. What was your invention?

A. I want to ask if it means that patent in the interference suit?

Counsel for defendant says yes, in the interference suit.

A. My invention is this continuing spiral wire springs, and I comes to this idea, that Mr. Florsheim takes me in the public library and read me that out the English patent book, that Miller & Son, 1866, made with rubber cord this elastic springs—con-
391 tinuings. It brings me to this idea to make this with spiral wire springs; that I go home right off, as I got it, so I hear. I go home and make experiments, and since that time I got it on every kind of work—only continuing springs, that's all.

R. D. Q. 2. Then, after you heard that patent read, as I understand you to say, that you made continuing springs out of wire, instead of India rubber?

A. Yes, sir.

R. D. Q. 3. Was that change what you called your invention?

A. Yes, sir.

R. D. Q. 4. You say, on your cross-examination, that you made a mistake as to the time or times when these matters occurred; how came you to make that mistake?

A. I made this mistake, that I thought "application for a patent" and "patent filed" means the same, and after that I hear it is not; when is made an application for a patent that it takes three, four, five weeks before it get filed; and when I go back to this time, then the time must be come out so as I said here in this testimony.

R. D. Q. 5. In your answer to cross-question 111 you say: "Yes, sir; I made no gaiter springs; made springs on garters, gloves, and different kind of experiments." Did all those articles contain plain margins?

A. All plain margins.

R. D. Q. 6. In answer to cross-question 139, which was: "Wasn't it (meaning the time the application was made for a patent for corsets) about March 10, 1879?" you say: "After the application is filed I could made not an application in the same time when the patent is filed," and you finish by saying, "It must be a long time before

that we made this application." What must have been a long time before? Do you mean the application or the invention?

392 A. I mean the invention first and after this application. My invention is in corsets. It's a long time before I made my wife a pair of corsets, and at that time is my invention, in first part of January, 1879.

R. D. Q. 7. You say, in answer to cross-question 134, that Florsheim bought the overalls with the springs in. What do you mean by that?

A. Florsheim bought the overalls and I made the springs in.

R. D. Q. 8. Explain and state the difference, if any, between the corset Downs made for you and those you made after Florsheim read the English patent to you in the public library.

A. That corset that Mr. Downs made me there is the springs made continuous with a plain margin.

R. D. Q. 9. Well, that don't fully answer the question. What was the difference between the Downs corset and the corset you made after you knew of the British patent?

A. Just the same.

R. D. Q. 10. Was the Downs corset made before or after you had been to the public library?

A. After I had been to the public library.

R. D. Q. 11. Who gave the instructions to Downs how he should make that corset?

A. I did.

R. D. Q. 12. What did you do with that corset after Downs made it for you?

A. I sent it to Boston, to Woodward's.

R. D. Q. 13. You spoke in your cross-examination of a Mr. Periolat. Who's he?

A. He does a fur business on Madison street.

R. D. Q. 14. What had he to do with it? What was your connection with him?

393 A. We made a contract for this interference suit that he promised he will pay the cost—what it cost—and after he wasn't to have part of that patent.

R. D. Q. 15. Why did you not go to Brother Florsheim?

A. I have enough from him.

R. D. Q. 16. When Mr. Ball came to you and bought the two pairs of springs and paid you a dollar for them, did you suspect what he was up to or what he was going to do with them?

A. Well, I thought he want- to give it to the ladies, so as he says, and use them in corsets or let them use in corsets.

R. D. Q. 17. Who was your attorney in your application for the patents, and also in the interference?

A. In the first four patents is Lotz, and in the interference Mr. Dyrenforth.

R. D. Q. 18. Did you go into that interference by his advice?

A. Yes, sir.

R. D. Q. 19. If I understand you, it was discontinued—that is, it was dropped—because you couldn't raise money to carry it on. Is that so?

(Objected to, as the records themselves are the best evidence of how the interference was discontinued or dropped and *of* in whose favor it was decided.)

(Defendant's counsel states that he doesn't ask in whose favor it was decided or how it was dropped, but only asks the reason of its dropping.)

A. Yes, sir.

R. D. Q. 20. Mr. Schilling, can you read English, either in printed matter or written?

A. No, sir.

R. C. Q. 1. Did you not say in your glove patent, No. 218,322, dated August 5, 1879, "Defendant's Exhibit No. 1," I am also
394 aware that in an English patent No. 3451, of 1866, there is described an elastic gore for shoes composed of leather, divided by stitches into numerous tubes, through which, when wrinkled, a small India-rubber strand is threaded back and forth, and I therefore disclaim the invention described in such English patent?

A. I don't know what Lotz write. He was my attorney, and I left it to him. I don't understand it.

R. C. Q. 2. You swear, do you, that he didn't tell you anything about this English patent?

A. I can swear to it that he tell me not a word.

R. C. Q. 3. If you swore in your interference suit that Mr. Lotz told you and Mr. Florsheim about this English patent, you were then mistaken, were you?

A. No, sir; Mr. Lotz tell to Mr. Florsheim and not to me; and after I come to Mr. Florsheim, and he tell me that Lotz tell him that that in the public library there is English patent book, and I go along with him.

R. C. Q. 4. This was after your application for a glove patent was rejected in the Patent Office on reference to this English patent, was it not?

(Objected to on the ground that the rejection of a patent and the proceedings in reference thereto are matters of record in the Patent Office and cannot be proved by parol.)

A. It was after we made this application on gloves. If it was rejected or not I don't know.

GUSTAV SCHILLING.

Subscribed and sworn to before me this 2d day of January, A. D. 1883.

JNO. C. MACGREGOR,
Notary Public.

Further taking of testimony is here adjourned until 10 o'clock a. m., Wednesday, January 3, 1883, at same place.

395 WEDNESDAY, *January* 3, 1883.

Met pursuant to adjournment.

Present: As before.

ALEXANDER SCHILLING, the next witness, being duly sworn, in answer to interrogatories propounded by defendant's counsel, testified as follows:

Q. 1. What is your name, age, residence, and occupation?

A. Alexander Schilling; 23; board at 177 Oak street, Chicago, Illinois; artist.

Q. 2. Are you the son of Gustav Schilling?

A. Yes, sir.

Q. 3. Do you reside with him and his family?

A. Yes, sir.

Q. 4. And have always done so?

A. Yes, sir.

Q. 5. What has been your father's business for the last three or four years?

A. He is a glove-maker by trade and has followed it for the last three or four years?

Q. 6. During that time has he been engaged in the manufacture of other articles besides gloves? If so, what?

A. To the first, yes, sir. He has manufactured a glove-fastener, and for a short time was engaged in the manufacture of gaiter gores.

Q. 7. Do you know of your father having anything to do with the manufacture of corsets during that time, or parts of corsets?

A. Yes, sir; he manufactured an elastic back piece, which is sold separately, and a little over a year ago commenced the manufacture of corsets with elastic pieces sewn in.

Q. 8. What year was it when he commenced making the elastic gores for corsets—the back pieces, as you call them?

396 A. Do you mean those that he made separately?

Q. 9. Yes, sir.

A. In 1880, if I remember right.

Q. 10. What time in the year 1880?

A. I should say between March and June or July.

Q. 11. You say that he first commenced making backs to corsets and afterwards made corsets. About what time did he make the first corset, to your knowledge, complete corset?

A. About the latter part of December, 1878, or first of January, 1879.

Q. 12. About how many do you know of his having made?

A. Including his first experiment, just spoken of, I should say about seven or eight up to July, 1880.

Q. 13. Did these elastic backs, and also the complete corsets, contain springs?

A. Yes, sir; they contained elastic sections made by means of springs drawn through the cloth.

Q. 14. What kind of springs were first made and inserted in the elastic backs or corsets—single or continuous?

A. In the first two, single.

Q. 15. In the rest—what?

A. In the other five, continuous.

Q. 16. Look upon Defendant's Exhibit No. 8 and state what kind of springs you call those—single or continuing.

A. Continuing.

Q. 17. How do those springs compare with those used you have spoken of as continuing springs?

A. Just like them.

Q. 18. In what respect do they differ from what you call single springs?

A. This spring is one which runs from end to end and from
397 group to group, and is fastened at both ends, whereas the single spring is cut off at the end of each puckering, and where in the continuous would be one in such piece as this there might be two dozen of the single.

Q. 19. How does that elastic section, Exhibit No. 8, now in your hands, compare with those used by your father in the corsets you have mentioned made by him since he commenced using continuing springs?

A. The spring part of it is just the same. The only difference in the entire is that where this has eyelet-holes and whalebone in the sides in the others these were left away and a margin left and sewn in.

Q. 20. In regard to the articles you have mentioned as manufactured by your father, how was it in reference to each of them having a margin? Had they or had they not, and if they had, what kind of a margin was it—plain or otherwise?

A. They had a plain margin.

Q. 21. How did you come to see him making those corsets or other articles? How was you situated as to your facilities for seeing and observing what your father was doing?

A. During the winters of '78 and '9 and '79 and '80 I had my studio in the house and worked there. I was about the house nearly all that time.

Q. 22. Did you notice any one helping him?

A. We all, more or less, had to do with it, but my sister and mother did the most of it with him.

Q. 23. Do you recollect of your father's sending any samples to Boston; and, if so, when, and how many?

(Objected to as leading.)

A. He sent about five, between February and June or July, '80.

Q. 24. Do you recollect of your father's sending away any samples of corsets?

(Objected to as leading.)

398 A. Yes; he sent those five to Boston, to F. L. Woodward & Co.

Q. 25. When?

A. I should say about March or April, '80, some of them, and the balance some time before June.

Q. 26. Would you be able to identify any one of those corsets if shown to you?

(Objected to as leading.)

A. I could tell you whether they were like them.

Q. 27. Look upon Defendant's Exhibit No. 7, now handed to you, and state how that compares with those you say were sent to Boston.

(Objected to as leading.)

A. I should say it was just like it.

Q. 28. State, if you please, how those corsets were made; describe their construction.

A. They had three elastic pieces inserted: one at the back, instead of the lacing, and one at each side, running from under the arm down to the bottom of the corset.

Q. 29. Describe the springs and margins.

A. The elastic pieces like this (Exhibit No. 7) were made with one continuous spring drawn through puckered tubes in the cloth, in groups, fastened at either end, and then by means of the margin at the sides sewn into the corset.

Q. 30. How were those puckered tubes made?

A. They took two pieces of cloth, laid them face to face, stitched them in groups, then there were wires inserted in all of them and put into a vise-like sort of a machine and screwed together; then the wires were drawn out, one by one, and the spring drawn through as the wire was withdrawn and fastened.

Q. 31. State, if you please, how those groups were formed; be more definite as to that.

399 A. At first my father took and ruled two lines, one at either side of the cloth, running from top to bottom, about three-quarters of an inch from the edge, then drew his lines where the sewing would come, between these two lines, using the two side lines to show how far the sewing was to go and not run into the margin. After that he used a stamp to mark the cloth, with the same result, as a little quicker way of doing it.

Q. 32. I may be a little confused myself. Let me see if I understand you. Do you mean to be understood that after the tubes were formed in groups, with these two pieces of cloth sewed together face to face, the wires were put through the tubes and the cloth crimped together on the wires by means of a vise, and then a continuous wire spring drawn back and forth through all the tubes? Is that what I understand you to say?

A. Yes, sir.

Q. 33. You say that your mother and sister helped your father chiefly. What work did your sister do?

A. My sister did the sewing of the cloth.

Q. 34. And what part did your father do?

A. He did the crimping and putting in of the springs.

Q. 35. Are crimping and puckering synonymous terms or used in the same sense?

A. I should think so.

Q. 36. Now, please describe this spring, of what it was composed, and how it was made.

A. It was a coiled trap wire spring, and my father made it by attaching a piece of steel wire to the upper wheel of the sewing machine, resting the end of the wire on the table, fastening the brass wire to the end nearest the wheel, and in that way winding the brass wire around the steel wire and cutting the fastening and taking it off the wire. He afterwards got a fastener, and in that
400 way commenced at the other end of the wire, so that he could make it endless.

Q. 37. Do you remember the circumstance of your fathers' procuring a machine at any time, a machine for making springs; and, if so, when?

A. Do you mean the opening of the spring or crimping the cloth?

Q. 38. I mean for crimping the cloth.

A. Yes; he had two. The first one was not entirely successful; 'twas made by a man by the name of Mason, and I think that was about March—some time in March, 1879; and the other about three weeks later, about the fore to the middle part of April, '79.

Q. 39. Did you hear of the circumstance of your father and Mr. Simon Florsheim having been together in the public library in Chicago examining a British patent; if so, when did you first hear of it?

(Objected to as calling for hearsay evidence and because it is leading.)

A. Yes, sir; I heard of it the same evening. This was towards the middle of February, 1879. I know it to be this time, because father's birthday occurred on the 16th; some friends which were at the house at that time speaking jokingly of his invention or his inventive fever, as they called it. He gave them for answer that now he had got something good—to several particular friends.

Q. 40. From whom did you first receive information of your father and Florsheim's visit to the library?

A. My father.

Q. 41. What did your father say to you on that subject?

(Objected to as incompetent; question withdrawn; objection withdrawn.)

Q. 42. Now, sir, after that time did your father manufacture any other articles, among them overalls?

(Objected to as leading.)

401 A. Yes; he made some elastic pieces for overalls, to use for samples, I think.

Q. 43. Now, after that time or near the time when you heard they had been to the library, what did your father do, if anything, in the way of experimenting? State fully and particularly the facts relating to that subject within your own personal knowledge.

A. I know that he experimented from that time on with a con-

tinuous spring in various things—glove-fasteners, gaiter gores. He made a pair of gaiters, I think, and corsets.

Q. 44. Before you heard of their being at the public library what kind of springs were exclusively used by your father in his manufactures?

A. Single springs.

Q. 45. After your hearing of that circumstance and the commencement of these experiments by your father what kind of springs were exclusively used by him in his manufactures?

A. I am positive that in his experiments he used the continuous, and I am quite sure that what he manufactured during that time the same kind of springs were used.

Q. 46. Do you know Mr. Simon Florsheim?

A. Yes, sir.

Q. 47. When did you first see him?

A. At my father's house. I was afterwards introduced to him at his own store.

Q. 48. When did you see him at your father's house with reference to the time when you heard of his having been with your father to the public library above mentioned? Was it before or after?

(Objected to as leading.)

A. I saw him afterwards.

Q. 49. How long afterwards?

A. I caught a glimpse of him once before, but I saw him
402 thoroughly one Sunday between the middle and latter part of April, shortly after father got the second machine.

Q. 59. How many times did you see him at your father's house?

A. I saw him twice, possibly three times; but I knew of his coming there quite frequently on Sundays.

Q. 60. State fully and particularly and in detail, so far as you possibly can and recollect, all that was said and done by Mr. Florsheim and your father at those interviews.

A. When Mr. Florsheim was in the house the first time or when I saw him the first time he merely passed through the room; but the last time, knowing that father was going to show Mr. Florsheim how the machine worked, and also the continuous spring (I had warned him previous to this not to do it in a general way), I stopped in the room a few minutes. Father and Mr. Florsheim were conversing together and my sister was sewing. When she got through she held over a piece of leather to father, saying as she did so, "Here it is." Father says, "All right," as near as I can translate it into English. "Come, I will now show you how I make it." I think that is about the translation of it. He put in the wires, it put in the machine, thereby showing how the machine worked; put in the springs, fastened it, tried it before Mr. Florsheim, saying as he did so, "What do you think of that?" Mr. Florsheim said in reply, "That's a good idea." He staid a few minutes longer and went out.

Q. 61. Do you now recollect any other thing that was done or said by Mr. Florsheim or any other circumstance which occurred

on that occasion as tending to show whether Mr. Florsheim, up to that time, had any knowledge or was ignorant of the manufacture and use of these continuing springs and their application? If so, state.

403 A. I should say his actions at that time would lead me to think that he did not; he seemed to be totally ignorant of it.

Recess here taken until 2.30 o'clock p. m. same day and place.

Met pursuant to adjournment.
Present: As before.

Cross-examination of ALEXANDER SCHILLING by L. L. COBURN, Esq.:

X Q. 1. You have testified once before this in reference to your father's inventions relating to corsets with elastic spring sections in them, haven't you?

A. Yes, sir.

X Q. 2. That was an interference suit between your father's application for a patent and Mr. Florsheim's patent, was it not?

A. I understand it to be an interference suit; yes, sir.

X Q. 3. Was not the principal point in that suit your father's date of invention and what he first did about making it?

(Objected to as leading.)

A. I understood that he tried to prove or wished to prove that he was the original inventor.

X Q. 4. Was not your testimony directed entirely to the point of establishing the time when your father made the invention and what he did while perfecting it, so far as you knew?

(Objected to on the ground that the testimony itself will better show its object and tendency.)

A. So far as I know, it was meant to establish that he was the original inventor.

X Q. 5. Was not your deposition entirely directed to what you knew in reference to the time when your father made the
404 invention and what he first did in reference to perfecting it and applying it to corsets? Can you answer that question? If so, will you?

(Same objection as before.)

A. It may have been; I don't know positively what the attorney's aim was; I should imagine it was to establish some dates.

X Q. 6. Did you then tell all that you knew about the time when your father made this invention and what he first did about embodying it in corsets?

A. I don't remember being asked a question which tended directly to that point.

X Q. 7. Did you then tell all that you knew about the time when your father made the invention and what he did about embodying

it in corsets and other articles? Can you answer that question by yes or no, and will you? If not, state why not.

(Objected to on the grounds that the testimony itself as given is the best evidence; that the question is multifarious, tending to confuse and mislead the witness, who may not remember all he testified to on that former occasion, not having the testimony now before him; also that it is incompetent to ask the witness what he swore to on a former occasion, and is, in other respects, irrelevant, incompetent, and immaterial and constitutes strictly no cross-examination of the witness upon the facts testified to by him in his direct examination.)

A. I cannot answer it by yes or no, for the reason that I cannot remember every word I said on that occasion.

X Q. 8. Was not this question then asked you: "Q. 3. Do you know of your father ever having been engaged in making corsets or parts of corsets; and, if so, state what it was and all you know about it?" or a question to that effect?

A. There is a possibility that such a question was asked me. I do not remember the particular question.

405 X Q. 8½. Your recollection isn't very good in reference to what you have sworn to, is it?

(Objected to as leading.)

A. My recollection, as a rule, is quite good. The part that I do not remember, which Mr. Coburn had reference to, was the last part of it, which was "and all about it." I don't remember of its having been used in a general way.

X Q. 9. Did you, then, intend to tell all that you knew in reference to your father's having made this invention of corsets and elastic spring sections for corsets, and did you tell all that you then knew about it?

(Objected to same as before.)

A. I tried to answer the question to the best of my knowledge at the time.

X Q. 10. Can you answer the last question? If so, will you?

A. Certainly I intend to answer all the questions that are asked me, to the best of my knowledge.

X Q. 11. Did you know anything about it then that you didn't tell? If so, what was it?

(Objected to as leading and incompetent.)

A. Know about what?

X Q. 12. Can you understand English?

A. Yes, sir; I try to.

X Q. 13. Did you know anything when you testified in the interference suit in reference to your father's making this invention in corsets or what he did about making corsets containing the invention that you did not then tell of?

A. Yes, sir.

X Q. 14. What was it?

A. If you will read me what I testified to then I will tell you or any particular point.

X Q. 15. Won't you tell without my reading it?

A. No, sir.

406 X Q. 16. You say you know there were some things that you then knew about it that you didn't tell of then. What was one of them, and why didn't you tell of it?

A. If you will read me what I did say, I will tell you all of it.

X Q. 17. Can't you tell one of them without what you did then say being read to you?

A. I might be able to, but not as well as if I had my old testimony in reference to any particular point which you wish to know about.

X Q. 18. I am not asking about any particular point in the old or new testimony. I'll ask you again if you then knew anything about your father having made this invention in corsets or doing anything about applying these elastic sections to corsets or other articles that you did not then tell of; and, if so, what was it?

A. Yes; it was how the idea first originated with him in the case of a corset. That's all, unless you wish me to describe how it came about.

X Q. 19. That is the only thing that you can now remember that you then knew about his invention and what he did about it that you did not then tell of, is it?

(Objected to as leading and improper.)

A. There are more things that I remember now, and which I will give separately if you will first read me what I said on a former occasion.

X Q. 20. I am not talking in reference to any particular thing, excepting to ascertain from you what you knew at that time about your father's invention and what he did about it that you can now remember of that you did not then tell of. What is another thing?

A. Making of a model to send to Washington.

X Q. 21. What model?

A. The one for which my father and Mr. Florsheim obtained a patent on.

407 X Q. 22. It was a corset, was it?

A. Yes, sir.

X Q. 23. When was it made?

A. About the latter part of January, 1879.

X Q. 24. Was there anything else that you then knew about your father's doing in reference to his corset invention that you did not then tell of; and, if so, what was it?

A. Yes; the fact of his going to the public library with Mr. Florsheim.

X Q. 25. Is there anything else that you can now think of that you didn't tell about then?

A. Yes; the fact of Mr. Florsheim coming to the house to find out how the continuous spring worked.

X Q. 26. Is there anything else?

A. I couldn't say at the moment.

X Q. 27. That is all that you can now remember, is it?

A. It is all I can think of at the moment.

X Q. 28. We will wait five minutes for you to think if you have any idea of anything else or know of anything else or think you will think of anything else that you then knew in reference to what your father did about making this corset invention that you did not then tell of.

A. I have told three things and have shown a willingness to explain them or any point that you wish to ask me about that I then may not have fully stated.

X Q. 29 Can you tell any other thing?

A. Yes; if you will tell me what you wish to know.

X Q. 70. What is it?

A. I don't think you have shown any point in particular that you wish to know about relating to the inventions of my father.

X Q. 31. Is there anything besides the three things you have named above that you knew at the time you testified in the
408 interference suit concerning your father's corset invention that you did not then tell of; if so, what was it?

A. Yes; the making of the two machines. I am not positive whether I was asked that question then or not, or any question relating to it.

X Q. 32. Can you now think of anything else that you then knew about that you did not then tell of?

A. No; I cannot at the moment.

X Q. 33. Did you not then give as a reason or excuse for not knowing more about what your father did in reference to making these corsets that you were not at home at the time? Please explain what the facts were about it and when you were at home and when not in the years 1878, 1879, 1880, and 1881.

A. I remember of making an answer somewhat to that effect regarding shipping of samples to Boston in '80. I believe I was at home nearly all the time during the winters of '78 and '79 and '79 and '80. I was out of town for short periods during that time.

X Q 34. What were you doing?

A. I was painting—following my profession—studying.

X Q. 35. Who with?

A. I had my studio at home those two winters.

X Q. 36. Who with—who did you study with?

A. During that time I studied by myself—in the studio in winter, outdoors during the summer.

X Q. 37. Did you have any other studio anywhere in which you did any work during those years?

A. During those two winters, no.

X Q. 38. I asked you about four years—1878, 1879, 1880, and 1881.

A. In the fall, or the winter, rather, of '80 until May 1st, '81, I was at room 33 Pike, now Ayer, building. From that time up to the present I have occupied room 81, Ashland block.

409 X Q. 39. What time in 1880 did you take the room in Pike building?

A. Somewhere about the first of September.

X Q. 40. You had no studio or place where you did work or studied in the city except at your father's house prior to that time, did you?

A. Not a studio by myself. I studied under H. A. Elkins for just one year—from February 5, '77, until February, '78.

X Q. 41. Were you at home from February, '78, with no other place in the city where you did work or studied, till September, 1880?

A. From February, '78, until I could work outdoors, I did nothing comparatively. Then during the summer I worked outdoors. When winter came I fitted up a room in my father's house for a studio and worked there during the winter.

X Q. 42. Till when?

A. Until it became warm enough the following spring, '79, for me to go outdoors to work.

X Q. 43. Where did you work the following winter?

A. Also at home; in my studio at home.

X Q. 44. Till when?

A. About the latter part of May or June I went outdoors whenever I got a chance, and going about the outskirts of the city for my subjects.

X Q. 45. Then, when you stated in your former deposition that you were absent when your father made those corsets, which you then testified about his making, you were mistaken, were you not?

A. It is quite likely that I was out of town at the time. I occasionally made visits to Riverside to see an old friend of mine, an artist friend.

410 X Q. 46. You have no recollection of seeing him make those corsets that you then testified about, have you?

A. I should like to know what corsets you have reference to. Those made in 1880 were not made all at once.

X Q. 47. I had reference in my last question to all your father's corsets that you testified about in your former deposition. Have you any recollection of having seen him make any of them; if so, when and where?

A. I saw him make nearly all of them—that is, all the sample corsets, and the one he made for mother about the latter part of December, 1878, or the first part of January, 1879; also the one made for a model, which was made a few weeks afterwards, about the latter part of January, 1879, and at least two that he made in 1880 to be sent to Woodward & Co.

X Q. 48. You didn't tell anything about the corset your father made for your mother, of which you have just spoken, nor about the one he made in January, 1879, when you testified in the interference suit, did you?

A. That may be. I knew about it at the time, however.

X Q. 49. What may be? That was not answering my question. Do you know whether you testified about those two corsets at that time or not?

A. I feel sure that I didn't say anything; nor was I asked, that I can recollect now, anything about the first corset—that one made for mother.

X Q. 50. I just asked you about two corsets. Why can't you answer as to them both?

A. I think I did say something about the second one—the model—and gave a description of it.

X Q. 51. Do you mean that you said something about the
411 model that you now say your father made in January, 1879, in your former deposition, and there gave a description of it?

A. That's the one I had reference to; yes, sir.

Further taking of testimony here adjourned until Thursday, January 4, at 10 o'clock a. m.

THURSDAY, *January* 4, 1882.

Met pursuant to adjournment.

Present: As before.

Counsel for defendant says witness wants to correct answer to direct question 60. Question re-read to witness, and witness answered as follows: "I said he staid a few minutes longer and then went out." I meant I staid a few minutes longer and then went out.

Cross-examination of ALEXANDER SCHILLING resumed:

X Q. 52. The first two corsets which you say that you knew of your father making, and which you did not mention or say anything about in your former deposition, were made where?

A. In my father's house; in the room or parlor used by him as a work-room.

X Q. 53. How were they constructed?

A. The first one, that he made for mother, was made with one elastic piece in the back. The model had an elastic piece in the back, wedge-shape elastic pieces on either side over the hips, and elastic shoulder-straps. The first one, that he made for mother in the latter part of December, 1878, or the first of January, 1879, had only one elastic piece sewn in the back. Now, the second one, the one made a few weeks later, say about the latter part of January, had an elastic piece in the back; also a wedge-shape elastic piece at each side over the hip, and elastic shoulder-straps.

X Q. 54. How were those elastic pieces made?

A. They were first sewn on in groups, a margin left at either side, of course, to sew in with, then springs drawn through and fastened at the end of each puckered tube with thread

412 X Q. 55. Are you positive that there was a plain margin left on the edges of those elastic pieces, or did each spring extend to the edge of the elastic piece?

A. Yes, sir; I am sure, especially in the second one, they were plain margins.

X Q. 56. How about the first one; how was that?

A. I will not be so positive about the first one. I should imagine the margins were plain.

X Q. 57. Do you know of his making a model for a patent for gaiters or shoes having elastic gores; and, if so, when did he first make any shoes of that kind?

A. Yes; I know of his making a model. I also know of his making experiments with a view of applying them to shoes and having a pair put into shoes that he had made for himself. He was experimenting during the months of February, March, — April, I should say, 1879, and manufactured them, in company with Mr. Florsheim, for a short time afterward—about the latter part of '80. I can fix the date because of my having been out in the country in the vicinity of South Bend, Ind.; also that while I was gone a friend of mine, a Dr. Brown, of Riverside, died from the effects of chloroform. This was either about August or September, 1880.

X Q. 58. When did he make the first pair of shoes or gaiters of this kind, either for a model or have made for himself or make for himself?

A. He had both between February and May, I should say, '79.

X Q. 59. Which first, if you know, and when, as near as you can tell?

A. I think he had a pair of elastics put into his own shoes first, I should say about March, 1879, or thereabouts; possibly before.

X Q. 60. Possibly how long before?

A. They might have been made as early as the latter part of January, '79.

413 X Q. 61. When did he make the model of gaiters or shoes of this kind, as near as you can tell?

A. I couldn't say positively, as about the same time, or near the same time, he was experimenting in other things; among them elastics for overalls, gaiters, and several other things, I think.

X Q. 62. What other things?

A. I can't recall them just now.

X Q. 63. Then you can't fix the time when the elastic-gored gaiters or shoes were made any more definitely than between February and May, 1879, can you?

A. I should say it was about February or March; that's as near as I can come to it at the moment.

X Q. 64. Was it some time after he made the two corsets last above testified about; if so, about how long after he made the last corset, as near as you can tell?

A. My impression is, it was a very short time after it. It was before I heard my father speak of his going to the library. The elastic pieces I saw were not continuous.

X Q. 66. Do you know it was after he made the corsets? Did he not make the shoes before making the corsets?

A. He may have made samples before the corsets—the model that went to Washington.

X Q. 67. I don't ask you what he might have done. What do you know about it, if anything? Do you know which he made first, the shoes or the corsets? If so, state.

A. I can't positively say.

X Q. 68. Then, so far as you know, the shoes may have been made in 1878?

A. I am pretty sure they were made in the fore part of 1879.

X Q. 69. Did the elastic gores in those shoes have plain margins for sewing them in?

414 A. Yes, sir; they had margins.

X Q. 70. They were the same in that respect as the elastic section for the corsets, were they?

A. Yes, sir.

X Q. 71. When were the overalls made?

A. About March, 1879.

X Q. 72. How near about it, as close as you can get it and be positive?

A. I should say between the middle of February — towards the end of March or middle of March.

X Q. 73. Do you say it because you know and will swear positively it was between those dates or is it simply your impression?

A. It is because I know it was before father went to see Mr. Mason regarding the first machine.

X Q. 74. When was that?

A. About the middle of March.

X Q. 75. How near about it, as close as you can state and be positive?

A. I should say not over five or six days later.

X Q. 76. What makes you positive about that date?

A. There was a friend of mine from South Bend stopping at the house at the time, and he took a collection of pictures, in company with this Mr. Collis, to Milwaukee, and they left about the fore part of the last week in March; and it was before they left that father got the first machine.

X Q. 77. Who was your South Bend friend?

A. A Mr. Kotz—Daniel Kotz.

X Q. 78. What was done with this model shoe or gaiter that you have said your father made?

A. I don't know what became of it after he took it in to show to Mr. Florsheim.

X Q. 79. Why do you call it a model?

A. I heard him say that it was.

415 X Q. 80. Model for what?

A. To show the construction of it. I don't know what he wanted to use it for.

X Q. 81. Your father swore in the interference suit as follows: "(C. Q. 27.) You afterwards, as I understand you, applied for a patent on a shoe or gaiter? (A.) Yes. (C. Q. 28.) With the wire springs in the sides? (A.) Yes, sir. (C. Q. 29.) Did you make any of those? (A.) I made only the sample that goes to Washington—the model." You now swear that he made a pair of shoes for himself and the model at that time. Which is mistaken, you or your father?

(Objected to on the ground that the question assumes that one of the witnesses is mistaken; also that testimony to contradict or impeach a witness is not proper at this stage of the cross-examination, but should be in reply; also that it does not appear, except by the statement of counsel, that the father did so swear on the interference, and there is no evidence that this witness knows what his father did swear to on that occasion.)

A. I think neither of us. I think he meant to say that after he had wore these shoes he had made a model.

X Q. 82. Did he make any other shoes of this kind for himself that year that you know of?

A. It is possible he did. He made quite a number of elastic pieces for friends that I know of.

X Q. 83. I don't ask you what is possible. I ask you what you know about it. Do you know of his making any other shoes of this kind for himself in '79?

(Objected to on the ground that there is no evidence that he ever made any shoes.)

A. I know of his making springs for shoes. Whether any of them were meant for his own use I can't say positively.

Recess here taken till 2 o'clock p. m., same day and place.

416 Met pursuant to adjournment.
Present: As before.

Cross-examination of ALEXANDER SCHILLING resumed:

X Q. 84. If your father swore that it was in the month of April, 1879, that he and Mr. Florsheim went to the public library to see the English patent, and that he knew nothing about making continuous springs or margins until that time, and you now swear that he told you about going to the public library to see the English patent with Mr. Florsheim in February, in 1879, and you, when you testified before, did not say that you knew anything about their going to the public library, which is mistaken, if either, as to the date? Which would know best about it, you or your father?

(Objected to the same as to cross-question 81, and also that the question is incompetent, as calling for the opinion of the witness as to the relative knowledge of his father and himself.)

A. I know that he told me of his being at the library in company with Mr. Florsheim before the 16th of February, 1879.

X Q. 85. Now, will you answer the question?

(Question repeated.)

A. I don't remember of the question being asked me in the last testimony, and if my father said that he was mistaken regarding the date.

X Q. 86. You have testified above that your father went into partnership with Mr. Florsheim to make elastic gaiter gores in the fall of 1880, and you knew the date by your going to South Bend and

by the death of a friend. If you were mistaken in that date and fixed it one year out of the way, might you not possibly be mistaken as to some other dates?

A. Not with this one that you have just spoken of—the date of the library—because I had my room or studio at my father's house, 51 North Halsted street, just that one winter, '78 and '79; and
417 as to the time when my father went into partnership with Mr. Florsheim for the purpose of manufacturing gaiter gores I will say this: That about two days previous to my leaving the city for South Bend I started to go down town and met my father a few doors from the house. He stopped me and told me that he and Mr. Florsheim had completed arrangements to begin manufacturing. I asked him then if he had made a contract. He said no, not yet, but that they were going the next day or day after. When I returned from South Bend, about five or six weeks afterwards, the first thing I heard was that Mr. Florsheim had refused to sign the contract, and that thereupon he had quit. It was within a week previous to my return that my friend died. I have the letter at home now announcing his death. The letters will show the year.

X Q. 87. What year was it?

A. I think it was '80.

X Q. 88. You don't know, do you, and cannot tell positively only by referring to the letter?

A. I can tell by referring to the letter.

X Q. 89. I have no doubt of it, but that does not answer my question.

(Question repeated.)

A. No, I cannot; but I know that during the time of my absence from the city the Grant boom occurred, for I heard of the Grant boom before I returned to the city.

X Q. 90. If your father swore that this partnership was in the fall of 1879 and you swear it was in the fall of 1880, which is mistaken, if either, and which would know best about it, you or your father?

(Same objection as to cross-question 81.)

A. I know that that partnership was formed in the time
418 that I have stated when there was circumstances or events occurred. I may be mistaken as to the year, but the letters will fix it.

X Q. 91. I have no doubt you may be mistaken, but that does not answer the question.

(Question repeated.)

A. That's all the answer I can give and be positive.

X Q. 92. Can you give us a guess about it?

(The question objected to on the ground that it is purely hypothetical; that there is no evidence in the case as to what witness' father did swear to on the occasion referred to, but it does not appear that the witness now under examination was present when his father testified, if at all, or that he ever saw his testimony or ever heard

what it was, except as now assumed by the counsel, and that no witness can answer such a question satisfactorily to himself or in accordance with the justice of the case, and that counsel has no right to assume a state of facts and, upon that assumption, ask the opinion of the witness for the purpose of impeaching his own testimony or contradicting that of anybody else.)

A. I don't propose to guess. I know that that partnership affair occurred during the time those events transpired that I have mentioned. I will say now that I know that it was in '79.

X Q. 93. Then you can answer the question now, can't you, as to which was mistaken about it, you or your father; if so, which was it?

A. I may have been mistaken in the year, but not in the time when those events occurred. I meant when I said '80.

X Q. 94. Don't you now know that you were mistaken, and know that you fixed that date one year out of the way?

A. I can tell you that positively if you will allow me to produce the letter before mentioned.

X Q. 95. You can't tell me without, can you?

419 A. I do not wish to.

X Q. 96. I judge from your answers that you don't wish to, but that does not answer the question.

(Last question repeated.)

A. Not as positively as with it.

X Q. 97. Do you mean by that that you don't know positively without referring to the letter?

A. I do know, but not so clearly.

X Q. 98. If you know, please answer the questions.

(Objected to on the ground that the question had been fully answered.)

A. Very likely I was, if it proves that these events that I have mentioned transpired in 1879.

X Q. 99. Do you know in which year they transpired? If so, state.

(Objected as having been fully answered.)

A. It is very evident they transpired in 1879.

X Q. 100. Question repeated.

(Objection renewed.)

A. It is very evident they transpired in 1879.

X Q. 101. Evident to whom; to you?

A. Quite so; yes, sir.

X Q. 102. Then you were mistaken, were you, when you swore it was in 1880, and do you now say that it was in 1879 that this partnership occurred?

A. As to the year, yes, but not as to the events.

X Q. 103. Who is asking you about any events?

A. No one.

X Q. 104. Of whom did your father rent the house, No. 51 North Halsted street?

(Objected to as immaterial.)

A. Of an agent. I don't remember his name.

X Q. 105. Do you know to whom he paid rent or where for that house?

(Same objection.)

420 A. To the agent. He called for it. He collected it at the house.

X Q. 106. Who owned the house, if you know?

(Same objection.)

A. I never heard the gentleman's name mentioned. He lived abroad.

X Q. 107. Who was present at your father's birthday party, on February 16, 1879?

A. It wasn't what you might call a party. There was several intimate friends called at the house during the afternoon and evening.

X Q. 108. Who were they? Name them all.

A. There was a Mrs. Wettring, a Mr. Baer, another neighbor, whose name I can't just now remember, and a Mr. Borman.

X Q. 109. Can you give the first names of any of them?

A. No, sir; I cannot. I never heard them called by any other name.

X Q. 110. Can you state the exact language of your father when he first told you about going to the public library? If so, state it.

A. I remember my coming home toward evening from a visit to town that day. I came into the room where he worked, and this is what he said, as near as I can remember it: "Alex., I found out a good thing which I think I can make use of in the springs." I asked him some question as to what it was and how he came by it. He said, "You know the card I got—the postal card from Florsheim. I called on him; he took me to the library and read to me out of a patent book something about using one piece of rubber elastic in the same sort of a thing that I have been experimenting on—our springs. I will use one spring and draw it through each tube, and will only have to fasten it at the two ends, instead of cutting them at
421 the end of each tube. That will save an immense amount of time." I asked him if the ends wouldn't break when he made so short a turn in the spring. He said it ought not to if the wire was good; at any rate, he could draw a string through them and fasten at each end. I spoke about what a good thing it would be if he could make it work. That's about all, as near as I can get to it.

Further taking of testimony here adjourned until 10 o'clock a. m., Friday, January 5, 1883, at same place.

FRIDAY, *Jan'y* 5, 1883.

Met pursuant to adjournment.
Present: As before.

Redirect examination of ALEXANDER SCHILLING:

R. D. Q. 1. Mr. Schilling, you spoke yesterday on your cross-examination in relation to certain dates sought to be fixed by the counsel in his questions to you. You referred to a certain letter received by you announcing the death of a friend, which you stated would definitely fix the time and dates above mentioned. Have you that letter with you?

A. Yes, sir.

R. D. Q. 2. Refer to that letter and state its date and the time of its reception by you.

A. It is dated Riverside, November 16, 1879. It was first sent, care of D. Kotz, South Bend, Indiana, and then was readdressed to 955 Milwaukee avenue, Chicago. Carrier stamped November 22, 9 a. m.

R. D. Q. 3. When did you receive it?

A. I received it on that day.

R. D. Q. —. Does that fact now enable you to fix definitely the year and time of the year or either in which the conversation referred to by you as having taken place between your father and yourself as to his going into partnership with Florsheim in the elastic gore for gaiter business; and, if so, in what year? And, if you can
422 tell, what time of that year did that conversation actually occur?

A. It occurred about six or seven weeks previous to the receipt of this letter—previous to November 22, 1879.

R. D. Q. 5. Can you now speak positively as to that fact?

A. Yes, sir.

R. D. Q. 6. Mr. Schilling, counsel for complainants asked you several questions as to what he stated was a difference between the testimony of yourself and your father given in the interference case between your father and Florsheim in February and March, 1882. Were you a witness on that occasion? Did you testify?

A. Yes, sir; but not fully. I had been ill, in fact sick abed, for three or four weeks previous with typho-malarial fever, and was sick at the time, or just recovering, when I was put on the witness stand.

R. D. Q. 7. Do you remember who the testimony was taken before?

A. It was taken at Mr. Dyrenforth's office.

R. D. Q. 8. Do you remember before what notary public or commissioner?

A. A Mr. Brown, I think. I think I heard him called that name.

R. D. Q. 9. Were you present in the room while your father was testifying, during the whole time; or, if not, how large a portion of the time?

A. I went there several times, having been led to believe that it

was time for me to testify or to go on the witness stand; not for pleasure, though, by any means, for I still was feeling quite badly.

R. D. Q. 10. I think you misapprehend my question. Just listen to it again and answer it, please.

(Question re-read.)

423 A. I was not present the whole time; in fact, a very small portion of the time.

R. D. Q. 11. Have you, since the taking of that testimony up to the present time, seen or read that testimony or had your attention called to it in any way?

A. No, sir.

R. D. Q. 12. Counsel for complainants called your attention yesterday to the fact that you had testified on this occasion to certain facts which you did not testify to on that former occasion. State why you did not testify to those facts on such former occasion.

A. When I was first told by my father that he wanted me to testify I was sick on my back and unable to move. I said to him then, if you can possibly get along without me do so, for I don't see how I can gather my thoughts sufficiently, feeling as I do; but, if you must have me, make it as easy as you can for me. He asked me then if I could at least testify to the Boston affair. I said yes; I thought I could do that, as the letters themselves would show when it occurred. He said he wanted me to try and do as well as I could, at any rate.

R. D. Q. 13. Was the testimony in that case, while you were present, taken by question and answer, as this testimony is now being taken?

A. Yes, sir.

R. D. Q. 14. According to your present recollection, did you then answer all questions put to you by counsel on both sides?

A. To the best of my ability at the time; yes, sir; I feel pretty sure I did.

R. D. Q. 15. Do you now recollect whether you were asked questions on that occasion concerning the facts, if any, which you did not state on that occasion, but have stated on this examination?

A. I misunderstand that.

(Question re-read.)

424 A. I wish you would simplify that a bit; I can't quite comprehend it.

R. D. Q. 16. Counsel for complainants, Mr. Coburn, stated on your present cross-examination that you had now testified to certain facts which you did not testify to in the interference case. Do you understand my question so far?

A. Yes, sir.

R. D. Q. 17. What I wanted to ask you is whether, in that interference case, counsel asked you questions about those facts which you have now testified to and which counsel charges you omitted to state when you testified in that interference case.

(Question objected to because it incorrectly states the matter re-

lating to the difference between the witness' present and former deposition.)

A. I am quite sure they were not asked me; otherwise I should have answered them.

R. D. Q. 18. I refer you to cross-question No. 63, which is this: "Then you can't fix the time when the elastic-gored gaiters or shoes were made any more definitely than between February and May, 1879, can you?" To which you answered: "I should say it was about February or March; that's as near as I can come to it at this moment." After seeing the letter which you spoke of a short time since and refreshing your recollection on the subject, can you now state the time any more definitely than you did in that answer?

A. I stated in a subsequent answer that the sample which my father showed me I was sure was made before the day that he spoke to me of having been to the public library, because it had no continuous springs.

R. D. Q. 19. Repeat the question (to the examiner, and question re-read).

A. Yes; I remember quite distinctly that I saw the sample
425 referred to before the model of the corset that went to Washington, and that father wore a pair of shoes prior to that time.

ALEXANDER SCHILLING.

Subscribed and sworn to before me this fifth day of January, A. D. 1883.

JOHN C. MACGREGOR,
Notary Public.

Further taking of testimony is here adjourned until 2 o'clock p. m. same day and place.

Met pursuant to adjournment.
Present: As before.

LEWIS A. DOWNS, the next witness produced on behalf of defendant, being first duly sworn, testified as follows:

Q. 1. What is your name, age, residence, and occupation?

A. Lewis A. Downs; 40 years old; my residence is 525 Carroll avenue; corset manufacturer; employed by A. S. Gage & Co.

Q. 2. How long have you been engaged in that business, Mr. Downs, and in what particular department of that business have you been engaged?

A. In the East I was engaged three years as manager and salesman; three years, Gage Brothers & Co. Since the first of January the firm has changed to A. S. Gage & Co.

Q. 3. Are you acquainted with Gustav Schilling, the defendant in this suit?

A. I am.

Q. 4. When did you first become acquainted with Mr. Schilling, Mr. Downs?

A. In the spring of 1880.

Q. 4. Please state under what circumstances. State fully and particularly.

426 A. Mr. Schilling came to my place of business with an article composed of muslin and coil-wire springs, the springs inserted between the muslin; eyelets in each edge; said he would like to make arrangements to have those pieces sold through our house, in dozens, to our customers—merchants throughout the country. I told him that I did not think that was practicable, as they were intended to be put into a corset; they should be put in stationary—put into the corset before offered for sale. He afterwards brought in some pieces of the same, only more suitable, and desired that we should make a corset with those pieces or sections inserted. The first pieces brought were not suitable, exactly. He brought others that answered the purpose better. We made the article desired—the corset that he wished; afterwards wanted more corsets. He was dissatisfied with our price and we had no further dealings.

Q. 5. Be kind enough to state, if you can, about the time this occurred.

A. It was about the month of March, 1880.

Q. 6. Was anything said on that occasion with reference to an invention; and, if so, what was it?

A. There was. He said that this was his invention. I proposed to negotiate with him to manufacture the corsets and pay him a royalty. He agreed to the same, but never perfected the arrangement

Q. 7. What did he say was his invention?

A. The manner of construction—inserting coiled-wire springs between muslin, which would expand and contract.

Q. 8. Were those springs single or continuing?

A. One continuous spring.

Q. 9. How about a margin?

A. There was a margin; otherwise it would have been a very difficult matter for us to insert this coiled spring section into a corset.

427 Q. 10. What kind of a margin was it—plain or otherwise?

A. Plain; simply the edges of the muslin.

Q. 11. Please look upon Defendant's Exhibit No. 8 now handed you and state how that compares as to the fabric, springs, and margin with that produced by Mr. Schilling to you on the occasion just referred to.

A. This is like the first piece Mr. Schilling showed me.

Q. 12. In what respect does that differ from the second piece produced by Mr. Schilling?

A. The second piece did not have eyelets or any stiffening at the edge, and was made as I directed, so it could be inserted in the corset.

Q. 13. Now, please look upon and examine Defendant's Exhibit No. 4 now handed you and state how that compares with the piece secondly produced by Mr. Schilling.

A. I should say that this is one of the sections handed me the

second time Mr. Schilling came, which was all right with the exception of being too short. We did not use it on that account; also there was a little margin to be left at the bottom. That's one reason of its being too short, substantially the same.

Q. 14. Do you mean to be understood, Mr. Downs, as identifying this Exhibit No. 4 to be the same piece secondly presented to you by Mr. Schilling or that it is one just like that?

A. Yes; the same.

Q. 15. What kind of springs are those contained in this last piece spoken of? Are they single or continuing?

A. Continuing spring.

Q. 16. Do you know Mr. Thomas H. Ball, one of the complainants in this suit?

A. I do.

428 Q. 17. When did you first become acquainted with him, Mr. Downs?

A. In the year 1880.

Q. 18. About what time in the year, do you recollect?

A. I was introduced to the gentleman in the spring; had no business relations with him until fall—the coming fall.

Q. 19. And did you, in that coming fall, have an interview with Mr. Ball in regard to business relations? If so, please state fully and particularly all that occurred at that interview and the conversation had with [by] you, if any, with Mr. Ball in reference to it.

A. Mr. Ball asked me if we could make a corset for him with wire sections inserted. I told him we could; had some conversation in regard to the matter; afterwards made him a corset. He gave me to understand that if we could make the corset properly to please him, price and everything satisfactory, that he would give us quite an order for the goods. In due time that was brought about.

Q. 20. You say you made a corset for Mr. Ball. Where did you get the springs?

A. Mr. Ball gave them to me.

Q. 21. How soon was that after the talk about your making the corsets for him?

A. I could not say exactly. We did have one interview or more before Mr. Ball brought in the spiral spring sections.

Q. 22. What kind of springs were those that Mr. Ball brought—single or continuous?

A. One continuous spring.

Q. 23. Now, Mr. Downs, when Mr. Ball brought those springs to you or during the interview was there any conversation between you and Mr. Ball as to Ball's right to use those springs? Please answer, yes or no.

429 (Question objected to as leading.)

A. Yes.

Q. 24. State that conversation, the whole of it, as far as you can recollect, giving the language, if you can, and state all that you recollect that Mr. Ball said, using his language, as near as you possibly can.

A. I spoke to Mr. Ball about Mr. Schilling having brought in some wire sections and had them made into a corset; told him Mr. Schilling claimed to be the inventor. I asked Mr. Ball how it would be about manufacturing a corset for him, as we did not wish to infringe. Mr. Ball told me that Schilling and Florsheim owned the patent together which embodied the spiral spring in its mode of construction; that they, Ball and Florsheim, had tried to make arrangements with Schilling; that he was obstinate, stubborn; could not do anything with him; would ignore him in the matter altogether, as he could not do anything; did not amount to anything in this matter; the patent Schilling and Florsheim owned was a different thing to this. On the strength of what Mr. Ball told me I did not hesitate to go ahead and make the goods which he ordered.

Q. 25. Was there anything said in that conversation by Ball upon the subject of their buying out Schilling? If so, state what was said.

A. There was. Mr. Schilling was very foolish. They would have given him something rather than to have had any trouble. That's Mr. Ball's statement; not mine.

Q. 26. Did Mr. Ball use any harsh language on that occasion? If so, state it.

A. He was very decided in his opinion in regard to Mr. Schilling being stubborn and foolish, as he thought; said he was a damned old fool—stubborn and willful.

430 Cross-examination by L. L. COBURN, Esq.:

X Q. 1. You say the first coiled-wire elastic section that Mr. Schilling showed you was intended to be sold by the dozen and be used in corsets. Where in the corset?

A. In the back.

X Q. 2. When you told Mr. Schilling that you did not think it would be practicable and that the elastic section should be sewed into the corset before the corset was sold was there any talk between you as to where in the corset the elastic section or sections should be used; if so, what was said about it?

A. There was. My idea was to put it in the back. Next time Mr. Schilling came in he wanted them put in the sides of the corset.

LEWIS A. DOWNS.

Subscribed and sworn to before me this 5th day of January, 1882.

JOHN C. MACGREGOR,
Notary Public.

PETER F. WOLFF, the next witness, being first duly sworn, testified as follows:

Q. 1. What is your name, age, residence, and occupation?

A. Peter F. Wolff; my age is 46; 3739 Vincennes avenue, Chicago, Illinois; merchant.

Q. 2. Mr. Wolff, do you know Gustav Schilling; and, if so, how long have you known him?

A. I know Mr. Schilling. I have known him for six or seven years.

Q. 3. When you first knew him in what business was he engaged?

A. Making gloves.

Q. What kind of gloves?

431 A. The only glove that I ever bought of Mr. Schilling myself has been a special kid glove, lamb-lined, with a spring at the wrist.

Q. 5. What kind of springs, Mr. Wolff?

A. A wire spring.

Q. 6. Did you ever have any conversation with Mr. Schilling about the manufacture of gloves?

(Question waived.)

Q. 7. Did you ever have any conversation with Mr. Schilling or any negotiations with him about forming a partnership connection in the business of manufacturing his gloves?

A. We had no negotiations with Mr. Schilling. We held conversations with him on the subject.

Q. 8. When was that conversation?

A. About the time when we bought our first gloves.

Q. 9. And about when was that?

A. That was in July, 1878.

Q. 10. Did you hear after that time of a partnership connection in the manufacture of those gloves having been formed between Schilling and Mr. Simon Florsheim; and, if so, about what time?

(Objected to as incompetent.)

A. I did hear such from Mr. Schilling. As to the time, I could not exactly state. 'Twas some little time afterwards. I could not be positive.

Q. 11. In what portion of the gloves were these springs inserted?

A. In the wrist.

Q. 12. Please describe those springs.

A. It was a coiled-wire spiral spring encased in a leather pocket and sewed to the two ends of the wrist.

Q. 13. How was it sewed?

A. Well, I don't understand the question.

Q. 14. Was it in the shape of a gore, or how?

A. It was in the shape of a strap.

432 Q. 15. What was the object of it?

A. To make the glove tight-fitting around the wrist when on the hand, and at the same time elastic enough to put it on or take it off easy.

Q. 16. Do you know how long Mr. Schilling continued to make those gloves, Mr. Wolff?

A. I think up to within about a year we have had some.

Q. 17. Were those springs single or continuing—that is, were they formed of several pieces of coiled wire or one continuing piece?

A. I have never seen any of the springs in any of the gloves I ever bought.

Q. 18. Then you don't know?

A. I don't know.

Q. 19. Do you know anything of Mr. Schilling manufacturing corsets? If so, state your knowledge on that subject.

A. Mr. Schilling has shown me some corsets and pieces of corsets which he said were his manufacture.

Q. 20. What were those pieces?

A. They were strips about two and one-half or three and one-half inches wide, containing some of the springs.

Q. 21. Look upon Defendant's Exhibits No. 8 and No. 4, and see if they resemble either of the pieces shown you.

A. Yes; the pieces resembled those.

Q. 22. You say they contained springs. Were the springs inserted, as in either of those pieces, in the same manner or form; and, if not, how did they differ?

A. I think they were like these.

Q. 23. Did you notice whether the springs contained in those pieces were single or continuing?

A. I did not.

433 Q. 24. Please fix a time, as nearly as you can, Mr. Wolff, when the first corset or piece of corset containing those springs was shown to you by Mr. Schilling.

A. I couldn't fix an exact date, but as far as my recollection goes it was in the fall of 1878.

Q. 25. You say that Mr. Schilling at about that time exhibited to you pieces of corsets, similar to Defendant's Exhibit No. 4, containing springs. How was it with regard to a margin on each side of the spring, as shown by Exhibit No. 4?

A. That part of it I do not remember.

Q. 26. Then you do not remember whether the springs covered the whole space of the piece or terminated as they do in this exhibit?

A. To the best of my recollection, there was a margin there. As to whether it was puckered at that time or smooth or whether the edges were frayed like this (meaning Exhibit No. 4), I can't remember that.

Q. 27. But you have no doubt there was a margin of some kind, Mr. Wolff?

A. I think there was.

Q. 28. Was the time when Mr. Schilling exhibited to you the first corset or piece of corset containing these springs before or after the time when you say you heard of the partnership between Schilling and Florsheim?

A. I can't remember that.

Cross-examination waived.

PETER F. WOLFF.

Subscribed and sworn to before me this 5th day of January, 1883.

JNO. C. MACGREGOR,
Notary Public.

Further taking of testimony is here adjourned until 10 o'clock a. m., Saturday, January 6, 1883.

434 SATURDAY, *January* 6, 1883.

Met pursuant to adjournment.

Present: As before.

CHARLES NAGLE, the next witness, produced on behalf of defendant, being first duly sworn, testified as follows:

Q. 1. What is your name, age, residence, and occupation?

A. Charles Nagle; I am 17; 140 Clybourn avenue, Chicago, Illinois; cigar-maker.

Q. 2. Do you know Mr. Gustav Schilling?

A. This is the old man, is it not? Yes, sir.

Q. 3. Do you know Mr. Simon Florsheim, the gentleman sitting here (pointing to Mr. Florsheim)?

A. I don't recollect of seeing him before.

Q. 4. Do you know Mr. August Florsheim?

A. Yes, sir.

Q. 5. What were you doing in '79; what business were you in?

A. I was helping Mr. Schilling for these gaiters, and I helped Mr. Schilling to make them.

Q. 6. What part of the gaiters were you making?

A. I put in the springs.

Q. 7. Where was the place that you were working; where was the gaiter factory?

A. On Madison street. I believe in the same house as the shoe store.

Q. 8. Whose shoe store?

A. Mr. Florsheim's.

Q. 9. What kind of springs were made there, single or continuing, which were put into the gaiters?

A. Just one continual spring.

Q. 10. Now describe the piece in which the spring was, the shape and size of the piece which was put into the gaiter, and how it was put in.

435 A. Well, it was one piece of leather, a square piece, and the same size of cloth below it, then it was sewed by machine just big enough for to put the springs in. That's all.

Q. 11. Was there any margin on that?

A. On both sides.

Q. 12. Look on Defendant's Exhibit No. 4, now handed you, and see if the springs were anything like those.

A. Yes, sir.

Q. 13. While you were at work there in that factory did you see Mr. August Florsheim there?

A. Yes, sir.

Q. 14. How often?

A. Two or three times a day, about.

Q. 15. During what time—from about what time until about what time?

A. From about seven in the morning till six in the evening.

Q. 16. In what year and in what season of the year?

A. 1879. It was in the fall.

Q. 17. What was he, August Florsheim, doing there?

A. Looking around the shop to see how things were done.

Q. 18. What did he do about the springs, if anything?

A. Nothing, as I remember.

Q. 19. Did you hear him talk with Mr. Schilling about the springs, in reference to asking instructions how to make or put them in?

(Objected to as incompetent and immaterial.)

A. When I started to work there he tried to show me how to put the springs in. Then he called Mr. Schilling over to his side and asked him if that was the right way he showed me.

436 Q. 20. Did he seem to know or understand how to make or put in those springs without being told how by Mr. Schilling?

(Objected to as incompetent and immaterial.)

A. No. He did not seem to understand.

Q. 21. After refreshing your recollection do you now remember of having seen August's brother, Mr. Simon Florsheim, in the factory while you were working there?

A. No. I don't recollect of seeing him.

Q. 22. How many times or how often did you hear August Florsheim ask Mr. Schilling for instructions in making or putting in these springs?

(Objected to as incompetent and immaterial.)

A. As far as I can remember, only once.

Q. 23. When was it that he asked Mr. Schilling for instructions, as you have above stated?

A. When I first started there.

Cross-examination by L. L. COBURN, Esq.:

X Q. 1. Did you have a machine of any kind for puckering up the pieces into which you put these coiled-wire springs in that factory?

A. Yes, sir.

X Q. 2. How many machines of that kind were there?

A. Only two, I believe. I am not sure.

X Q. 3. Are you sure that there were more than one?

A. Yes, sir.

X Q. 4. Who used the other one besides you, if anybody?

A. There was another young fellow working there for a short time. He used the other one.

437 X Q. 5. Who paid you for your work.

A. Mr. Florsheim—August.

CHARLES NAGLE.

Sworn to and subscribed before me this 6th day of January, 1883.
JOHN C. MacGREGOR,
Notary Public.

Mrs. AMELIA BOPP, the next witness, being first duly sworn, testified as follows:

Q. 1. What is your name, age, residence, and occupation?
A. My name is Amelia Bopp; my age, 45 next September, the 17th; 442 West Lake street, Chicago, Illinois; housewife.
Q. 2. Mrs. Bopp, do you know Mr. Gustav Schilling; and, if so, how long have you known him?
A. Since '79.
Q. 3. At the time you first knew him how near did you live to him?
A. Next house.
Q. 4. On what street?
A. On Halsted street.
Q. 5. When you first knew him what business was he engaged in, if you know?
A. Making gloves.
Q. 6. Did you see him make the gloves, making any of them?
A. Yes, sir.
Q. 7. How were they made in regard to springs, if any?
A. I don't know.
Q. 8. Were there springs in the gloves?
438 A. There was springs in, but I never looked. I never see how they be made. I know there was springs in.
Q. 9. Did Mr. Schilling ever make a corset for you?
A. I bought one from him.
Q. 10. When did you buy that from him?
A. About six weeks ago. It's more. I been think about it. It's about twelve weeks. I've been sick nine weeks, just about a couple weeks before I took sick.
Q. 11. Did he make a corset for you in the year '79?
A. Just this one I bought; that's all.
Q. 12. Did you, in 1878 or 1879, see Mr. Schilling making corsets?
A. I seen him make Mrs. Schilling one.
Q. 13. When was that; how long after you first knew him?
A. 'Twas in '79, the end of January.
Q. 14. Were there springs in that corset?
A. Yes, sir.
Q. 15. Look on Defendant's Exhibit No. 4, now handed you, and state whether the springs were like that.

(Objected to as leading.)
Question waived.

Q. 16. Look upon Exhibit No. 4 and state, if you can, what kind of springs were in that corset you then saw.

(Objected to as leading.)

A. Three pieces. There was a shoulder piece and a hip piece, and a back piece.

Q. 17. Were those pieces with springs in like or unlike the one now shown you, Exhibit No. 4? Take that and look at it (handing exhibit to witness).

(Objected to as leading).

A. I remember there was a shoulder-strap, a small hip piece, and a back piece. Mrs. Schilling fetched it over and showed it to us.

439 Q. 18. You don't understand my question. You say there were three pieces. Were any of the pieces like that (showing exhibit)?

(Objected to as leading.)

A. I can't remember.

Q. 19. Do you remember whether those pieces had margins to them?

(Objected to as leading.)

A. Yes, sir.

Q. 20. Please state how those pieces were made, whether there was anything more than just the springs on those pieces?

(Objected to as leading.)

A. Well, I have told you all I know about it.

Q. 21. Look at this again (showing Exhibit No. 4). Do you know what that is (pointing to margin on exhibit)? What do you call that strip of cloth next to the springs; what do you call it?

A. Margins.

Q. 22. You say Mrs. Schilling showed you a corset her husband had made for her, and that it had strips with springs in them. Now, I want to ask you what there was next to the springs on that corset.

A. This (pointing to margin of Exhibit No. 4).

Q. 23. What do you call it?

A. Margins.

Q. 24. Was it plain or puckered?

A. Puckered up.

Cross-examination by L. L. COBURN, Esq.:

X Q. 1. What number on Halsted street did you live in 1879?

A. Fifty-three Halsted street.

X Q. 2. When did you move away from there?

A. Four years ago in April.

440 X Q. 3. You moved away from there in April, 1879, did you?

A. Yes, sir.

X Q. 4. How long did you live in that house?

A. Must have been two years the first of May.

X Q. 5. You remember, do you, that this corset was shown you before you moved away from that house?

A. Yes, sir.

X Q. 6. Of whom did you rent the house?
A. Mr. Reed.
X Q. 7. Where was his office?
A. On La Salle street.
X Q. 8. Can you tell about where on La Salle street, and what his business was?
A. No, sir; I can't tell.
X Q. 9. What is your husband's business?
A. He is working at the Dake bakery.
X Q. 10. How do you fix the time as being the last of January, 1879, that Mr. Schilling made this corset?
A. Because I had a pair of gloves made for my husband for Christmas, and I didn't get them then; I got them afterwards, so I remember well.

Redirect examination:

R. D. Q. 1. When you stated that the margin on that strip in the corset Mr. Schilling made for his wife was puckered up, what do you mean by being puckered up?
A. I mean the corset was not out straight. You can't sew it in; 'twas kind of puckered on the spring.

AMELIA BOPP.

Subscribed and sworn to before me this 6th day of January, 1883.

JOHN C. MACGREGOR,
Notary Public.

441 By consent of counsel on both sides the further taking of testimony is here adjourned until Wednesday, January 10th, 1883, at 10 o'clock a. m., at same place.

JOHN C. MACGREGOR,
Notary Public.

WEDNESDAY, *January 10th*, 1883.

Met pursuant to adjournment, and by consent of counsel the further taking of testimony is adjourned till Friday, January 12th, 1883, at same time and place.

JOHN C. MACGREGOR,
Notary Public.

FRIDAY, *January 12th*, 1883.

Met pursuant to adjournment, and by consent (counsel for defendant and the complainant, Simon Florsheim, being present) further taking of testimony is adjourned till Monday, January 15th, 1883, at same time and place.

JOHN C. MACGREGOR,
Notary Public.

MONDAY, *January 15th*, 1883.

Met pursuant to adjournment, and further taking of testimony

adjourned till Friday, January 19th, 1883, at same time and place.

JOHN C. MACGREGOR,
Notary Public.

FRIDAY, *January 19th*, 1883.

Met pursuant to adjournment, and the further taking of testimony adjourned till 2 o'clock p. m., same day and place.

442 Met pursuant to adjournment, and the next witness, HENRY BORMANN, being first duly sworn, testified as follows:

Q. 1. What is your name, age, residence, and occupation?

A. Henry Borman; 48 years; 157 Fulton street; occupation, barber.

Q. 2. Mr. Borman, do you know Gustav Schilling; and, if so, how long have you known him?

A. I know him for the last seven or eight years—maybe longer.

Q. 3. Did you ever visit at the house of Mr. Schilling on the occasion of the anniversary of his birthday; if so, in what year and what day, as near as you recollect?

A. I did on the 16th of February, 1879.

Q. 4. Previous to that time, and, if so, how long before, had you seen a model of a corset made by Mr. Schilling, and where did you see it?

A. I have seen a model of Mr. Schilling's—I mean to say a whole corset of Mr. Schilling's—on the end of January, 1879, or the first part of February.

Q. 5. Where did you see it?

A. In Mr. Bear's place, corner of Fulton and Halsted streets.

Q. 6. When you were present, as you say, at Mr. Schilling's on the anniversary of his birthday just spoken of by you, what did you see, if anything, of an article then shown you by Mr. Schilling?

A. He showed me one of his new inventions.

Q. 7. Describe what it was particularly.

A. It was a piece about that length (showing length of hand to wrist), of dark kid. Well, there was springs running into it. They be fixed right in the back of a corset, they told me. He told
443 me that this piece would beat the corset he showed us—would beat it all to pieces—would beat the other one he showed us. The other one he showed me in Bear's place—the whole corset.

Q. 8. You say there were springs in that piece of leather. Please state what kind of springs those were—single or continuing.

A. Well, in the corset I could not tell anything about it—the one he showed.

Q. 9. I don't ask you about the corset. I ask you about this piece of leather. What kind of springs were those? Describe them.

A. Continuing springs.

Q. 10. What do you mean by continuing springs?

A. Was all in one.

Q. 11. What do you mean by all in one?

A. Well, it commenced on the upper part of the piece that he showed me, up to the lower part.

Q. 12. Look upon exhibit ("Defendant's Exhibit No. 4") now handed you and state how those springs compared with those in the exhibit shown you.

A. Exactly the same, except they was made in leather.

Q. 13. Was there any margin on the side of those springs; and, if so, how did that compare with the margin on Exhibit 4, shown you?

A. What do you mean by margins?

Q. 14. I mean a space left on each side of the springs (showing an exhibit).

A. Yes, sir.

Q. 15. Was there one or two pieces of leather?

A. Two pieces.

Q. 16. How were they put together? Look upon the exhibit and see if you can tell us from that.

A. Well, he turned these two outer pieces (showing on exhibit) and showed us how the springs run.

444 Cross-examination by Mr. L. L. COBURN, Esq.:

X Q. 1. Did that piece that he showed you have any eyelets on the margins or edges for lacing it into the back of the corset, that you remember of?

A. Do you mean by eyelets, holes? No, sir.

X Q. 2. Was not that the kind of pieces he had for lacing into the backs of corsets?

A. I don't know.

X Q. 3. He told you that it was to be laced into the back of a corset, did he?

A. What do you mean by be laced?

X Q. 4. I mean by lacing into the back of a corset that he would make these separate pieces, and any one could put them into the backs of their corsets; that Mr. Schilling would only make the pieces, and any one buying those pieces could put them in the backs of their corsets; that Mr. Schilling himself would not make the whole corset; therefore that this was better than the whole corset he had shown you. Was that it?

A. No, sir; he only showed us the new invention he had made; that's all I know about it.

X Q. 5. How long did you stay at Mr. Schilling's house that day?

A. Maybe twenty minutes, maybe half an hour.

X Q. 6. What time of day was it?

A. In the evening, after supper; maybe half past seven or eight o'clock.

X Q. 7. Did he have any refreshments?

A. Yes, sir.

X Q. 8. What?

A. Wine.

X Q. 9. Was it after you had closed your barber shop for the evening that you called there?

A. I didn't keep a barber shop.

X Q. 10. Where were you employed then?

A. I was doing a little in commission business.

445 X Q. 11. In what line; who for?

A. Selling saloons anything.

X Q. 12. Who for?

A. For myself, certainly, and customers that would come up to me.

X Q. 13. Do you remember who entrusted you with goods to sell to saloons at that time?

A. I know several customers I done business with.

X Q. 14. What customers did you sell goods for on commission at that time?

A. At which time?

X Q. 15. In the first part of 1879?

A. That's pretty hard to tell.

X Q. 15½. What's your best recollection about it?

A. I couldn't tell anything about it.

X Q. 16. Can you tell the names of any persons or firms for whom you sold goods on commission to the saloons about that time?

A. Not at that time.

X Q. 17. Can you tell the names of any one for whom you sold at any time?

A. Yes, sir.

X Q. 18. Who were they?

A. Peter Rhode and Charles Zeph.

X Q. 19. When?

A. Peter Rhode's saloon I sold about a year and a half ago, and Charles Zeph bought a place about four or five months ago.

X Q. 20. Are you now at work at your trade?

A. Not at my trade particularly. Saturdays and Sundays I work at my trade.

X Q. 21. Did you work at your trade in 1879?

A. I did, partially.

X Q. 22. Who for, if any one?

A. In the same place I am working now, 219 Milwaukee avenue, Hotel Denemarke.

446 X Q. 23. Did you work there in January and February, 1879?

A. For the same man, any way.

X Q. 24. Was it at the same hotel?

A. I don't know about that.

X Q. 25. Explain why you don't know.

A. Because for a little while, for a few months perhaps, he took a store next door, and afterwards he took to the hotel again.

X Q. 26. What year was that?

A. I couldn't tell.

X Q. 27. What day of the week was it you went to Mr. Schilling's in the evening?

A. I couldn't tell.

X Q. 28. Was he going to put that piece of leather with springs in it into a corset, did he say?

A. He did not.

X Q. 29. Where do you live now?

A. 157 Fulton street.

X Q. 30. Where was Mr. Schilling's house at that time?

A. Corner Halsted and Lydia streets.

X Q. 31. Do you remember the number?

A. I think it was 51.

X Q. 32. Can you be certain pretty near the number?

A. Almost, because I was living at that time in 59 Fulton street.

X Q. 33. I meant are you certain that it was 51 or 53, so as to be positive as to one number or the other, as the number of the house in which Mr. Schilling lived at that time?

A. I think it was 51, the corner building.

X Q. 34. Do you know? I might think from hearing you state about it. Are you positive as to the location and number of the house?

447 A. Corner Lydia and Fulton streets; I think it is 51.

X Q. 35. May it not have been 151?

A. No, sir.

X Q. 36. Well, how near 51 are you positive of?

A. Well, I am pretty near positive it is 51, as near as I can recollect.

HENRY BORMANN.

Subscribed and sworn to before me this 19th day of January, 1883.

JOHN C. MACGREGOR,
Notary Public.

WILLIAM BAER, the next witness, being duly sworn, testified as follows:

Q. 1. What is your name, age, residence, and occupation?

A. William Baer; age, 43; 60 N. Sangamon street; my occupation is a shoemaker.

Q. 2. Mr. Baer, do you know Gustav Schilling; and, if so, how long have you known him?

A. I know him over twenty years; you may say twenty-two years.

Q. 3. Were you present at Mr. Schilling's house on a certain anniversary of his birthday; and, if so, when was it, and where did Mr. Schilling then reside?

A. Yes, sir; Mr. Schilling resided at 51 North Halsted street. After 7 o'clock—directly after 7—you may say a quarter past or half past 7.

Q. 4. On what day and in what year was this?

A. The 16th day of February, 1879.

Q. 5. Had you, before that time—and, if so, how long before—seen a corset made by Mr. Schilling, and where did you see it?

A. Yes, sir; I have seen a corset made by Mr. Schilling, and I have seen it about two or three weeks before the time I been up in Schilling's place, when his birthday was.

448 Q. 6. When you was at Mr. Schilling's place, when his birthday was, on the 16th of February, 1879, as stated by you, was anything shown to you by Mr. Schilling; and, if so, what was it? Describe it fully.

A. Yes, sir; he showed me a piece of leather. There was two pieces of leather sewed together, with springs sewed into it, and he told me — had a good thing—had a good patent.

Q. 7. Look upon Defendant's Exhibit "No. 4," now handed you, and state how, if at all, the springs in those two pieces of leather compared with the springs in that exhibit.

A. Yes, sir; they were sewed up together like this.

Q. 8. Were the springs in those pieces of leather single or continuing?

A. Were continuing.

Q. 9. Describe what you understand by a continuing spring.

A. The spring is made out of one piece and runs into the pockets there (pointing to Exhibit "No. 4") and runs all around clear to the bottom. That's what Mr. Schilling told me particularly in that piece of leather.

Q. 10. How was it about the leather being puckered over the springs, as shown in that exhibit?

A. Well, that was shown in the leather the same as in this exhibit. I don't know what you call it—this ruffled, I mean (pointing to exhibit).

Q. 11. How was it about a margin on each side of the springs as there is in that exhibit?

A. There was a margin on each side—outside.

Cross-examination by L. L. COBURN, Esq.:

X Q. 1. How long did you stop at Mr. Schilling's house that evening?

A. Oh, about in the neighborhood of half an hour—not quite half an hour.

449 X Q. 2. Who did you see there?

A. I saw Mr. Schilling, Mr. Bormann, and the son of Mr. Schilling.

X Q. 3. Is that all?

A. Yes, sir.

X Q. 4. Did you have refreshments?

A. Yes, sir.

X Q. 5. What?

A. I had a glass of wine.

X Q. 6. Was that all?

A. That's all.

X Q. 7. Did you go at the same time and leave with Mr. Borman?

A. Yes, sir.

X Q. 8. Was Mr. Schilling's son there all the time that you were there?

A. Yes, sir; he was there all the time I was there.

X Q. 9. What is his son's name?

A. Alex.—Alexander.

X Q. 10. Was he living at home then?

A. I think he did. I don't know, though, for certain. I think he did.

X Q. 11. Have you stated all that Mr. Schilling said about his new invention?

A. Yes.

W. BAER.

Subscribed and sworn to before me this 19th day of January, 1883.

JOHN C. MACGREGOR,
Notary Public.

GEORGE GRUENDEL, the next witness, being first duly sworn, testified as follows:

Q. 1. What is your name, age, residence, and occupation?

450 A. My name is George Gruendel; I am thirty years old; 61 Osgood street; machinist.

Q. 2. What was your business in the year 1879, and where did you then carry on business?

A. Machinist; 31 and 33 South Canal, third floor.

Q. 3. Do you know Simon Florsheim and Gustav Schilling; and, if so, how long have you known them?

A. Since early part of spring of '79.

Q. 4. In the spring of '79 did Mr. Florsheim and Mr. Schilling come to your shop?

A. They did.

Q. 5. State, as near as you can, what time in the spring it was.

A. As near as I can remember, it was at end of March or beginning of April.

Q. 6. Did they state to you what they came for; and, if so, what was it?

A. It was a certain machine to crimp leather or cloth, or both at once, in a certain shape on wires so it stays in that position—to replace the wires with springs.

Q. 7. Did they bring a model with them at that time?

A. They did; a piece of fabric, or what you call it, to use on gaiters.

Q. 8. Look on Defendant's "Exhibit 4," now handed you, and state whether that is the kind of work to be done by that machiue; give particulars.

A. It was very near the same, except of length and width; and the upper part was leather, the under cloth, sewed in that kind of manner as this represents (pointing to exhibit).

Q. 9. Did the model they brought have springs in it?

A. It had; the first.

Q. 10. What kind of springs were they, single or continuing springs?

451 A. As much as I can remember, the same as model lying before me.

Q. 11. You mean the Exhibit No. 4 shown you?

A. I do.

Q. 12. Was anything said on that occasion, by either Schilling or Florsheim, as to who was the inventor of the model containing the springs, and including them? Answer yes or no.

A. It was.

Q. 13. State all that Schilling said, and all that Mr. Florsheim said, and all that you said at that time when they came to your shop.

A. They wanted a machine to make up this kind of fabric as the model represents; put in a machine a certain way; have the wires sticking through the fabric; apply it with the wires into certain notches on the machine; press it together either with a screw or lever; after it is pressed, take it out of the machine, take wires out, one after the other, and put the springs in the same hole what the wire left.

Q. 14. Who gave you the directions as to what they wanted—that is, who told you what they wanted, and how and what for they wanted the machine made? Was it Schilling or Florsheim?

A. Both of them in first beginning, but the really mechanical working part—Mr. Schilling declared me the really working parts.

Q. 14. Was anything said about who was the inventor of that improvement; and, if so, who said it, and what was it?

A. It was said by Mr. Schilling.

Q. 15. What did Mr. Schilling say?

A. That he was the inventor.

Q. 16. Was Florsheim by at that time?

A. That is something what I don't can swear to.

452 Q. 17. Where was Florsheim when Schilling said that?

A. Either party been there separate after their first appearance and they was both at once—at the first appearance, I mean. Now, it can be that Mr. Schilling told me when he been there alone or with Florsheim together, but I don't can remember any more.

Q. 18. Did Florsheim ever claim to be the inventor or state to you that he was the inventor?

A. He never did that time, but there was an understanding that he furnished the money.

Cross-examination by L. L. COBURN, Esq.:

X Q. 1. Did either Schilling or Florsheim give you to understand at that time that they had a machine already made for doing this work, or did they simply give you ideas of what they wanted to have the machine do and let you get up the machine?

A. They did, and Mr. Schilling brought the other day two wooden stamps with two long screws on the ends to press that kind of together; but it wasn't suitable, and they wanted it in a better shape, as wooden clamps, as samples, and then, by telling my ideas about it, they concluded to have it made with one screw work in a slide with two steel jaws, where several notches were cut in to keep the wires apart, put on any shape of taper, a certain stop

to gauge certain widths, then replace the wires out of it with fabric on.

X Q. 2. When did you complete the machine, as near as you can tell, and who paid for it?

A. The early part of the spring of '79; Mr. Florsheim.

X Q. 3. Did you ever make another machine for them after that?

A. I did; for either party separate; for Florsheim Brothers and Schilling.

453 X Q. 4. When?

A. Florsheim Bros.' was in the fall of '79; Schilling's I don't can remember any more.

GEORGE GRUENDEL.

Subscribed and sworn to before me this 19th day of January, 1883.

JNO. C. MACGREGOR,
Notary Public.

Further taking of testimony is here adjourned until Saturday, January 20, 1883, at 9.30 o'clock a. m., same place.

SATURDAY, *January* 20, 1883.

Met pursuant to adjournment.

Present: As before.

CARLILE MASON, the next witness, being first duly sworn, testified as follows:

Q. 1. What is your name, age, residence, and occupation?

A. Carlile Mason; I am 76 next May; Chicago is my residence; manufacturing machinery—steam engines and boilers.

Q. 2. Mr. Mason, are you acquainted with Gustav Schilling; and, if so, how long have you known him?

A. I am acquainted with him; have known him as a glove manufacturer quite a number of years and personally became acquainted with him in the winter of '78 and '79. What I mean by that is that I was not personally known to him until he came to my office and wished some work done.

Q. 3. In what business were you engaged when he came to your office in the spring of 1879?

A. The same business as now.

Q. 4. How long have you been engaged in that business, Mr. Mason—how many years?

454 A. I have been doing business for myself since 1850 in Chicago.

Q. 5. State, as near as you can, what time in the spring of 1879 it was when Mr. Schilling called on you, as stated, and where was then your shop or place of business.

A. As near as I can recollect, it was about from the 20th of February to the first of March. I could not say exactly as to the date. It was between these dates, and the place of business was 100 North Clinton street.

Q. 6. For what purpose did Mr. Schilling then call upon you, and what occurred at that interview?

A. For the purpose of having a machine made for crimping and putting wires into cloth, to be used in his business of gloves and boots, I think he mentioned.

Q. 7. Did he, on that occasion, bring with him and present you any articles or material similar to "Defendant's Exhibit No. 4," now shown you, and the wire and needles now shown you? State particularly as to each and what he said as to their use and the purpose for which he showed them to you.

(Objected to as leading.)

A. He did present a piece of cloth with the needles inserted, as shown me, and a piece of coiled brass wire as a spring, and, with a crude model that he had, exhibited what he desired to be made, explaining that the cloth, after being sewed with the needles inserted, should be placed in the machine and then crimped or drawn together, the needles then being withdrawn and the coiled spring inserted into each of the places where the needles had been withdrawn and fastened in such a manner that when removed from the machine the cloth became elastic from the tension that the spring of coiled brass exerted upon the cloth.

Q. 8. The counsel has objected to the question which you
455 have just answered as leading. To save any question I will now ask you some questions irrespective of your last answer relating to the subject in question, and I ask you, first, what materials or articles, if any, Mr. Schilling produced to you on that occasion? Please answer as though your last answer had not been given.

A. Mr. Schilling came to the office with a bundle in his hand, saying he had something here he wished to show me. He produced a piece of jeans cloth of a darker color with the needles inserted and sewed between those needles, as shown in Exhibit "4," and also a piece of coiled brass wire several feet in length, giving me a description of what he desired to be done with those pieces.

Q. 9. State any further facts within your knowledge that occurred at that interview.

A. He stated that he desired to have a machine made in which to place the cloth with the wires inserted, and when properly clamped and in place screws so arranged as to contract or crimp the cloth in a proper manner; then withdrawing the needles and inserting the brass wire, coiling it through each one of those apartments left open after the withdrawal of the needles, so that when the cloth and the brass coil being inserted, when removed from the machine, would form an elastic band for boots, gloves, and corsets, I think he said.

Q. 10. Was anything said by Mr. Schilling on that occasion as to who was the inventor of that process or improvement which he then explained to you; if so, who was it?

A. I have no recollection of anything being said about an invention. As near as I can recollect, the words used was, "I have been trying to make a machine to do this work, but I have come to a mechanic like you to have it done," or words to that effect.

456 Q. 11. How do these needles and the fabric in which they are inserted and the coiled wire compare with those produced to you on that occasion by Mr. Schilling?

A. They appear to be the same, except as to the color of the cloth, as near as I can recollect, and except being more tapered than Exhibit No. 4.

(Counsel for defendant here offered in evidence the needles, piece of fabric, and a strip of coiled brass wire shown the witness, and to be marked "Defendant's Exhibit No. 9.")

Q. 12. What is your recollection, Mr. Mason, as to whether the piece of fabric or material shown you by Mr. Schilling on that occasion was composed of one or two pieces of cloth? Refer to Exhibit 4 and state how that compares, if at all, with that material.

A. It was composed of two pieces of cloth stitched together between the wires, as shown in Exhibit 4.

Q. 13. Did you, pursuant to such request and instruction of Mr. Schilling, make such a machine; and, if so, when was it made and delivered and to whom?

A. We made such a machine and delivered the same some time during the month of March, '79, to Mr. Schilling, I believe, as near as I can recollect.

Cross-examination by L. L. COBURN, Esq.:

X Q. 1. Mr. Mason, do you give these dates from entries made in your books or from recollection?

A. From recollection.

X Q. 2. Can you refer to your books and get more accurate dates?

A. I have endeavored to find the books in which those entries were made, but in moving our office the books have been mislaid, and I have yet been unable to find them.

457 X Q. 3. You stated, Mr. Mason, in one answer that Mr. Schilling said that he wanted to use the material to be made on the machine in gloves and boots, and in another answer you named gloves, boots, and corsets, you thought. Now, have you any positive recollection about his saying anything about corsets at all or naming anything besides gloves and boots or gaiters?

A. Yes; I believe he used the word corsets, and a great many other things he could use it for and make a great deal of business, and appeared to be excited over his prospects of what he could do with it.

X Q. 4. Did he name trowsers or overalls?

A. I don't recollect.

X Q. 5. Might it not have been at some interview later than the first interview you had with him that he named corsets, if at all?

A. It might have been; I am not positive about that.

Redirect examination by counsel for defendant:

R. D. Q. 1. What is now your best recollection, Mr. Mason, as to when that occurred?

A. I cannot state a fixed time other than it was during the time we were making the machine.

CARLILE MASON.

Subscribed and sworn to before me this 20th day of January, A. D. 1883.

JNO. C. MACGREGOR,
Notary Public.

ALEXANDER EILERT, the next witness, being first duly sworn, testified as follows:

Q. 1. What is your name, age, residence, and occupation?

A. My name is Alexander Eilert; 46 years of age; I reside 308 Larrabee street, Chicago; my trade is furrier.

Q. 2. Are you acquainted with Gustav Schilling; and, if so, how long have you known him?

458 A. I am acquainted with him and know him about eighteen years.

Q. 3. In what business, during that time, have you known him to be engaged?

A. In a tannery.

Q. 4. Anything else?

A. I don't recollect.

Q. 5. Did you ever know of his being engaged in any other business except being in the tannery?

A. A good while afterwards, in the mittens business.

Q. 6. Do you remember when he lived on Halsted street, in this city?

A. Yes.

Q. 7. What year?

A. 1878.

Q. 8. Where did he live in the early part of 1879?

A. Commencing in '79, he lived on the same place.

Q. 9. Was you in January or February, 1879, at his house; and, if so, about what time in January or February?

A. It was the last days of January or the first days in February.

Q. 10. On that occasion did you see Mr. Schilling doing anything; and, if so, what?

A. I was there on certain business, getting my gloves he made for me, so I saw them wire springs there. I asked what for he used them, else for gloves or for gaiters, so he told me he wants to use this for a corset, and he want to take a patent out on that. He showed me pieces he made himself. There he told me he had made one already for his wife and it is good, and he told me — could make something out of it.

Q. 11. Did you see him doing anything on a sewing-machine; if so, what?

459 A. On my request if he made the springs himself and how he made them, he told me he want to show me. His daughter was present, and she sat down to the machine and took wire and made this springs out of it.

Q. 12. Do you know his daughter's name?

A. No.

Q. 13. Look upon exhibit, "Defendant's Exhibit No. 4," and state how that compares with the piece shown you by Mr. Schilling on that occasion.

(Objected to as leading.)

A. He showed me some like this before me (pointing to Exhibit No. 4). I can't explain because I don't understand anything of it. Mr. Schilling explained it to me, but I can't state any more what it was; it was too long ago. I paid no attention to it.

Q. 14. How was it as to that piece shown you by Mr. Schilling, as to a margin or space by the sides of the piece, near the ends of the springs?

A. So much as I recollect there was a space on the side, what you call margin. Then I asked him, Does it only need to be sewed into a corset and then the whole business is done? So Mr. Schilling said, Yes.

ALEXANDER EILERT.

Subscribed and sworn to before me this 20th day of January, A. D. 1883.

JOHN C. MACGREGOR,
Notary Public.

Further taking of testimony is here adjourned until 2 o'clock p. m., Monday, January 22d, 1883, at same place.

MONDAY, *January* 22, 1883.

Met pursuant to adjournment.

Present: As before.

MATILDA SCHILLING, the next witness, being first duly sworn, testified as follows:

Q. 1. What is your name, age, residence, and occupation?

460 A. Matilda Schilling; age, 19 years; 177 Oak street; I live at home.

Q. 2. Are you the daughter of Mr. Gustav Schilling?

A. Yes, sir.

Q. 3. Have you always lived with your father at home?

A. Yes, sir.

Q. 4. Where did your father reside in January and February, 1879?

A. At 51 North Halsted street.

Q. 5. How long did he live there; from what time to what time; about how long?

A. We moved there in 1878 and moved away in 1879.

Q. 6. In what business was your father engaged at the time he lived on Halsted street?

A. In gloves.

Q. 7. What had been his business previous to that time?

A. He was making gloves and invented some patents, I know.

Q. 8. Was he ever engaged in the corset business—making corsets or gores for corsets?

A. Yes.

Q. 9. When did he first commence that business, according to your best recollection?

A. In the latter part of 1878.

Q. 10. Please look on "Defendant's Exhibit No. 7" and the gores therein, and state how they compare with those made by your father before January or February, 1879.

(Objected to as leading.)

A. They were something like this—just like this.

461 Q. 11. State, if you please, what kind of gores for corsets or gloves were made by your father before the year 1879; describe it as near as you can.

(Witness here desires to correct answer to question 10 and insert "they were something like this; I don't think they had continuing springs like this, as much as I can remember.")

A. They were for gloves, as much as I can remember; there was two pieces of leather sewed together, needles put in, puckered together, and the springs put in—wire springs.

Q. 12. Were they single or continuing wire springs?

A. Single.

Q. 13. You worked with your father and assisted him in making these various articles, did you not?

A. Yes, sir.

Q. 14. Did you become familiar with their manufacture and the way in which they were made?

A. Yes, sir.

Q. 15. Now, if you please, describe the difference between single springs and continuing springs.

A. The continuing springs were two pieces of cloth sewed together, needles put through, puckered together, margins left on the side; needles were drawn out and wire springs drawn through from top to bottom. The single springs were also two pieces of cloth or leather, margins on each side, needles put through, and pieces of wire put through and fastened at each side of the cloth.

Q. 16. Of how many pieces of wire was one group of continuing springs composed?

A. There was one continuing spring.

Q. 17. How many pieces of wire were used in making one continuing group?

A. There was one.

Q. 18. And how many in making a group of single springs?

462 A. Oh, there were several used of them.

Q. 19. In making a group of single springs how many pieces of wire were used for each tube?

A. Several pieces, if I understand right. I guess that's what you mean.

Q. 20. I don't think you understand me. What I want to know

is how many pieces of wire were used in making a group of single springs containing, say, six tubes.

A. Is that what you mean—these tubes (pointing to exhibit)?

Q. 21. Look upon Defendant's Exhibit "No. 4." Take the first group of springs on that exhibit. Supposing them to be single and not continuing springs, how many tubes does that group contain? Count them and see.

A. Six.

Q. 22. Supposing that group to be composed of single springs, how many pieces of wire would be used?

A. Six.

Q. 23. When did you first hear, Miss Schilling, of continuing springs; when was your attention first called to them?

A. February or March, 1879.

Q. 24. On what occasion and how was your attention directed to it?

A. On glove springs, and pa was experimenting.

Q. 25. And when was that?

A. February or March, 1879.

Q. 26. Do you know Mr. Simon Florsheim; and, if so, how long have you known him?

A. Yes, sir; I know him. When I first seen him he was in our house, 1879.

Q. 27. Can you give about the time he was there first?

A. The latter part of April, 1879.

463 Q. 28. Previous to that time had you heard of the circumstance of Mr. Florsheim and your father having been together in the public library in Chicago?

(Objected to as leading and calling for hearsay evidence.)

A. Yes; I have heard father speak about it.

Q. 29. How soon after you heard of that was it that your father commenced experimenting, if at all, with springs?

A. It must have been about in March or February, as far as I can remember.

Q. 30. What kind of springs had he been using previous to that time; single or continuing?

A. Continuing.

Q. 31. I mean before the time when you heard that your father and Mr. Florsheim had been together at the public library.

A. Single springs.

Q. 32. Now, after that time when you say he commenced experimenting with springs what springs were they that he was experimenting upon; single or continuing?

A. After what time?

Q. After the time that you heard that your father and Mr. Florsheim had been to the public library together.

A. Continuing springs.

Q. 34. State, if you please, in your own way and as fully as you can what those experiments were, how he made them, and what was the result.

A. They were gaiter gores, and sometimes pieces of cloth, just to see how it would work. There were two pieces of leather sewn together, margins left on each side, needles put through; needles were drawn out and wires—one continual spring—was put in.

464 Q. 35. Look upon "Defendant's Exhibit No. 9" and state what kind of needles and wire were used in those experiments.

A. Steel needles and brass coiled-wire springs.

Q. 36. How do those needles and the wire you now hold in your hand—Exhibit No. 9—compare with those used in those experiments?

A. They were just like these.

Q. 37. You say that you think it was about the middle of April, 1879, that Mr. Florsheim came to your father's house. Do you remember of his seeing those experiments or asking your father any questions about them? Answer this question, yes or no.

A. Yes.

Q. 37. Now please state all that was said and what occurred between your father and Mr. Florsheim on that occasion. Give all you recollect on that subject.

A. It was on a Sunday morning in middle of April or latter part of April, 1879, when Mr. Florsheim came to my father's house and asked my father to show him how to make those continuous springs. My father gave me two pieces of leather and told me to sew it into groups and marked on each side, so — to leave a margin on the side. When this was finished I handed it to my father. My father took it, put these thin needles in, and put in the press which he had made for that purpose—puckered it together. When this was also finished he took it out, took a continuous spring, and put it through the groups from one end to the other of the piece of leather. When my father took this continued spring he said to Mr. Simon Florsheim, "Now I will show you how I make those continuous springs." Mr. Simon Florsheim was surprised and praised my father. It was a very good idea.

Q. 38. Do you recollect, Miss Schilling of Mr. Florsheim being at your father's house more than once; and, if so, about how often did he come there?

465 A. Oh, he's been there several times.

Q. 39. Do you recollect anything that occurred at any other time when he was there? If so, state.

A. I've seen him there, just as I said, several times. Generally when he came pa and Mr. Florsheim had some experiments for me to sew.

Q. 40. Do you recollect, on any of those occasions, of your father showing him how to coil the wire for those springs on the sewing machine?

A. Yes, sir. Father showed him how he coiled the wire springs on the sewing machine.

Q. 41. What expression or action did Mr. Florsheim make when your father showed him that—what did he say or do?

A. He was surprised, and said to my father it was a very good thing.

Q. 42. Do you recollect the birthday party of your father's spoken of by the other witnesses?

A. Yes, sir.

Q. 43. Who was present on that occasion?

A. Mr. Bormann and Mr. Baer and my brother and several ladies.

Q. 44. What was done on that occasion in reference to any corsets or gloves, if you recollect?

A. I do not remember.

Q. 45. Do you recollect of anything being done with a model that your father had on that occasion?

A. Yes, sir.

Q. 46. State what was done, what the model was, and all that occurred.

A. 'Twas the model of a corset—a corset model—that was sent down to Washington. It had a back piece, a spring in the back, shoulder-straps, and pieces on the hip. That occurred on the last part of January or the beginning of February, I think it was. That's how I know, on account of the birthday.

466 Q. 47. Then that model was there on the birthday. Is that your recollection?

A. Yes; that is as much as I can remember.

Q. 48. Now, Miss Schilling, during the times when you say Mr. Florsheim was at your father's house and your father showed him the experiments and how to make the springs, as you have before stated, what evidence did Mr. Florsheim exhibit, if any, of his having had any knowledge of how those continuous springs were made before your father showed him?

A. He did not understand anything about it. His ways and actions and asking questions showed that he did not understand how to make them.

Q. 49. Now, Miss Schilling, when did your father first make application of those springs to corsets? I speak now of continuing springs.

A. In October or November, 1879.

Q. 50. Do you recollect in reference to the first corset he made with those springs in?

A. Yes, sir. In 1880 he made sample to send down to Boston; they had those springs in.

Q. 51. Did your father ever make any overalls with springs in them?

A. Yes, sir.

Q. 52. And about when was that?

A. In 1879; February or March, as near as I can remember.

Q. 53. Were those springs single or continuous?

A. As much as I can remember, they were continuing.

Q. 54. Do you recollect the time when your father and Mr. Florsheim were in partnership in the gaiter factory?

A. Yes, sir.

Q. 55. Were you employed there at the time?

A. Yes, sir.

467 Q. 56. In what part of the manufacture were you engaged?
A. I was doing all the sewing.
Q. 57. Do you know Mr. Augustus Florsheim, a brother of Mr. Simon Florsheim?
A. Yes, sir. He came up in the shop occasionally.
Q. 58. Were Augustus and Simon Florsheim frequently in the factory during the time you were there?
A. Yes, sir.
Q. 59. What were they doing; what did they do?
A. Augustus Florsheim came up mostly every day. He wanted to learn how to make the gores. Mr. Simon Florsheim also came up occasionally to see and to look around. Mostly every time Simon Florsheim and August Florsheim asked questions how this or that was made. My father was there and showed them how.
Q. 60. What evidence, if any, did Mr. August Florsheim exhibit during these times as to whether he had or had not any acquaintance with or knowledge of the making of those continuing springs except as your father showed him?
A. He didn't have any knowledge of that business. Whenever he wanted to know anything he always asked my pa.
Q. 61. Do you know Mr. Ball—Thomas H. Ball?
A. I do.
Q. 62. Do you know of Mr. Ball ever purchasing any springs of your father—springs like those in Defendant's Exhibit No. 8, now shown you?
A. Yes, sir.
Q. 63. About when and how many?
A. In 1880, the latter part of June, Mr. Ball came to my father's house and bought a spring, a corset spring. When Mr. Ball was gone I asked my father who that man was. He told me it was Mr.
468 Ball. The next day Mr. Ball came again. He wanted some more springs. He said he gave it to a lady; she was so well pleased with it he wanted some more of them. He asked my father if he can't get three of those for one dollar. My father said, "No; I can't do it. My price is 50 cents apiece."
Q. 64. Were those single or continuing springs?
A. They were continuing.
Q. 65. Now, I'll ask you one question, Miss Schilling. When did you know of these continuing springs which you say were used in gaiters and overalls first being used in corsets—the earliest period?
A. In 1879, October or November, my father made an application on corsets—corset springs.
Q. 66. Do you recollect of his making any corset springs of that kind—continuing springs—before that?
A. No.

Cross-examination by L. L. COBURN, Esq.:

X Q. 1. Are you certain that it was the last of June, 1880, that Mr. Ball came to your father's house to purchase some spring back pieces for corsets?
A. Yes, sir.

X Q. 2. How do you fix that date?

A. 'Twas the first order of gloves for jobbers at that time; that's how I remember.

X Q. 3. Did he give an order for gloves at that time?

A. No, sir; we had our first order of gloves to make.

X Q. 4. How do you fix the date of your first order for gloves as being the last of June, 1880?

A. Because it was rather early at that time for jobbers to give orders out for gloves.

X Q. 5. Are you as positive about this date as the other dates you have testified to?

A. Yes, sir.

469 X Q. 6. Your father made a corset for a model which he took to Mr. Florsheim some time in the spring of 1879. When did he make it?

A. I do not know of him making any model in the spring.

X Q. 7. When did he make it?

A. All that I know of him making any model was a model that was sent down to Washington. That was the latter part of January, 1879.

X Q. 8. You have testified about this same matter before at Mr. Dyrenforth's office, haven't you?

A. Yes, sir.

X Q. 9. Did he not ask you when you first knew that your father made the first sample of corset, and did you not say it was in the spring of 1879, and that your father gave it to Mr. Florsheim?

(Objected to on the ground that it is not competent to ask the witness what was testified to by her on a former occasion.)

A. Probably I did, but I don't remember.

X Q. 10. Did you not then state in answer to this question: "(Q. 45.) Now can you remember in what part of 1879 it was that your father first made that spring for a corset? (A.) I don't quite remember that." And also, in answer to Q. 46, "Can you remember whether it was in the latter part of the year or the early part? (A.) I believe in the early part." And on the next day did you not give the following answer to this question: "(Q. 89.) Have you more distinct recollection now than you had yesterday of any corset or part of corset that was made by your father in 1879? (A.) Well, the corset we took to Mr. Florsheim; that was in 1879, in March."

(Question objected to as being multifarious; so many questions being blended in one tend to confuse the witness; that the
470 questions should be asked separately; that not one witness in a dozen could give an intelligent answer to so confused a question.)

A. I cannot answer such a long question as that. If you give me short questions I shall answer; not unless.

X Q. 11. Didn't you then say that this first corset that your father made was made and given to Mr. Florsheim in March, 1879, meaning the same corset that was sent to the Patent Office?

A. I don't remember if I said so or not.

X Q. 12. If you said so you were mistaken, were you?

(Objected to.)

Witness requests the question preceding to be re-read. The notary read X Q. 11, and witness answers:

A. I think it was. I don't remember whether it was or not.

Further taking of testimony here adjourned till 10 o'clock a. m., Tuesday, January 23, 1883, at same place.

TUESDAY, *January* 23, 1883.

Met pursuant to adjournment.

Present: As before.

Cross-examination of MATILDA SCHILLING resumed:

X Q. 13. Did you not say on your former examination, at Mr. Dyrenforth's office, in answer to this question: "(C. Q. 44.) Your father had a machine, then, for making a continuous wire, did he, at the time Florsheim came there? (A.) Yes, sir; he had just got it in—just received it—and Florsheim came out and pa showed it to him?"

A. I don't remember of saying that.

X Q. 13½. If you did say it, was it true?

(Objected to on the ground that counsel has no right to ask
471 the witness the question whether her former testimony was true or false, and asks the examiner to instruct the witness that she is not bound to answer that question.)

(Examiner here says to witness that she is not bound to answer that question.)

A. I cannot tell. If you read the last testimony—questions out of it—I can tell you whether it is true or not.

X Q. 14. I did just read one with the answer in X Q. 13, which question is now repeated.

(Notary here read again X Q. 13.)

(Counsel for defendant repeats his objection, saying he don't believe the witness understood it, and makes the further objection that that question has already been answered.)

A. Not that I know of. I know he got a machine in 1879, first part of April, to pucker the leather together, and not to make continuous springs. He made continuous springs on the sewing machine and not on the press he got in April, 1879.

X Q. 15. Did you not on that examination answer this question, referring to this machine for puckering, namely: "(C. Q. 46.) You had never known anything about a continuous wire spring until that machine came there, did you?" as follows: "(A.) I hadn't; no, sir."

A. I don't know if I was saying that or not. If so, I was puzzled up that time and made a mistake.

X Q. 16. Did you not answer this question then asked you "(C. Q.

48.) Never heard anything about it until that machine came there," as follows: "No, sir."

A. I don't remember.

X Q. 17. But if you did give that answer you were mistaken, were you?

(Objected to.)

A. Yes, sir; guess I was.

472 X Q. 18. And did you not answer the next question then asked you as follows: "(C. Q. 4.) And that, you say, was in April, 1879? (A.) Yes, sir."

A. What was in April, 1879?

X Q. 19. That you first knew of a continuous wire spring, and never knew anything about it until that machine came there, which was in April, 1879? Is not that what you testified to in Mr. Dyrenforth's office?

A. I don't remember if I did or not.

X Q. 20. What do you think about it?

A. I think it was wrong.

X Q. 21. What do you think about your testifying to it—that you did or did not testify to it?

A. I can't answer all that. Read it over again, and perhaps I can understand it.

(Notary reads from cross-question 19 for the witness, and witness answered, Yes; I did testify to it.)

X Q. 22. But you now think you were then mistaken about it, do you?

A. Yes, sir. Mistaken about what?

X Q. 23. Mistaken when you testified that you first knew or heard of your father making any continuous spring fabrics after he got his crimping machine to the house, in April, 1879.

A. Yes, sir; I was mistaken.

X Q. 24. Were you mistaken when you said, in that testimony which you gave at Mr. Dyrenforth's office, that the first corset with wire springs in it which your father made was made and given to Mr. Florsheim in March, 1879?

A. Yes, sir; I was mistaken about that, because I was puzzled at that time. I made a mistake. It was in the last part of January or first part of February that corset was made.

473 X Q. 25. You had no recollection at that time of your father ever having made any corset before making the samples that were sent to Boston in 1880, excepting this one corset which was given to Mr. Florsheim to be sent to the Patent Office, had you?

A. I don't remember if I did or not.

X Q. 26. Did you say anything about his making any other corset excepting this one at any time before the corsets were made that were sent to Boston?

A. I don't remember if I said anything about them—about any other corset.

X Q. 27. Have you any knowledge or recollection now of his having made more than this one corset with wire springs of any kind in it before the corsets were made in 1880 that were sent to Boston?

A. I know he made one for my mother, 1879, first part of January, or it might have been the latter part of December, 1878.

X Q. 28. Why did you not mention his having made that corset when you testified before?

A. I suppose there was no question asked about it. If there was, I thought it would not be necessary to mention it.

X Q. 29. These two questions were then asked you: "(Q. 3.) Do you know of your father ever being engaged in making corsets or parts of corsets? If so, tell all you know about it." "(Q. 4.) When was it that you first knew of your father making samples of the kind that you refer to?" How would you now answer those questions—the same as you did then, or would you tell all you knew concerning what your father did about making corsets with springs in them?

(Question objected to.)

A. I cannot answer such a long question as that.

X Q. 30. Did you tell all you knew about your father making corsets when you answered the questions that have just been read to you?

474 (Objected to on the ground that the witness' attention has not been called by the counsel to what she did testify to on that occasion.)

Counsel for complainants states, for the information of the court, that counsel for defendant has a copy of that testimony, and it should appear, as this information will make the objection that the witnesses do not know what they swore to on a former occasion, is made for effect only.

Counsel for defendant, for the further information of the court, states that although he has a copy of that testimony which was taken in February, 1882, he has never shown it to the witness nor said a word to her on the subject, and that the objection is not made for effect but for good and sufficient cause.

Counsel for complainants further adds that the counsel who entered the last objection apparently has not consulted with or coached any of the witnesses personally, but has employed one Zimmerman, a professional expert who has had charge of the papers, and usually had written statements of the substance of what each witness would swear to, and by counsel's side, constantly consulting him during this entire examination, and generally finding the place in the copy of former testimony for counsel when that testimony is referred to.

Counsel for defendant requests the examiner to expunge from his minutes the above statement of complainant's counsel as being immaterial, scandalous, and impertinent.

Examiner declines so to do, and counsel for defendant, upon such refusal, gives notice that he shall move the court on the hearing to strike out the same with costs, and at the same time pronounces the statement so placed upon this record as being absolutely, posi-

tively, and unqualifiedly without any foundation in substance
475 or matter of fact, and after this little episode begs the learned counsel to proceed with the testimony.

Counsel for complainant will state that every part of his last statement is true of his own knowledge, with the exception as to the statement as to who employs Zimmerman. He only knows that Zimmerman is here acting and doing as stated, but counsel has no actual knowledge as to who actually employed him, and that he is now sitting by counsel's side and has been during the entire examination.

Counsel for defendant replies that the testimony being taken and that that has been taken during the last two weeks has been taken in Mr. Zimmerman's law office by consent of complainant's counsel; that when Mr. Zimmerman consented that his office be used for that purpose he did not suppose he was signing a cognovit in an action of ejectment, but supposed he had a right still to retain a seat in his office; that during the examination to-day Mr. Zimmerman has principally been engaged in perusing the Chicago Legal News, and has not interfered in any way with nor assisted counsel in the examination; that Mr. Zimmerman, being a solicitor of patents and thoroughly conversant with patent controversies, was at the commencement of this suit employed by the defendants to examine the various patents in this case and the matters connected therewith; that that has been his sole business in this matter; that he has not asked a single question of the witness before the examiner, and defendant's counsel objects to this mode of presenting any question of that character in the case.

Counsel for complainant will say that said Zimmerman has continually consulted with witnesses that were brought here to be examined, and he is prepared to prove that he has been outside hunting and consulting witnesses, and that all that he has stated about it is strictly true.

476 Defendant's counsel, again protesting against this mode of procedure as being unwarranted, improper, uncalled for, and uselessly and expensively encumbering the record, considers it beneath his dignity to further continue the controversy and begs the counsel will with the same courtesy and amiability which he has evinced heretofore go on with his case.

A. If you will read the last testimony of the interference suit I shall see if I testified — all of it I knew or not.

X Q. 31. Do you remember whether you said anything in that testimony about your father making a corset in January, 1879, or December, 1878, or at any other time, for your mother?

A. I don't remember if I said so or not.

X Q. 32. What do you think about it—that you did or did not?

A. I don't know whether I did or not. That is my best recollection, whether I said so or not.

X Q. 33. You mean, do you, that it is now your best recollection that your father made two corsets before March, 1879?

A. I mean that is my best recollection of the last testimony. I

have testified about that corset—the corset for my mother—and not the model that was sent down to Washington.

X Q. 34. Did you mean to say, then, that the corset that he made for your mother was taken to Mr. Florsheim to send to Washington in March, 1879?

A. No. The corset, I mean, was not taken down to Mr. Florsheim. That was the first corset my father had ever made—the last part of December, 1878, or first part of January, 1879. He has [had] made another corset in the latter part of January, 1879, or first part of February. That was the corset that was taken down to Mr. Florsheim, which was the model. In March, 1879, he
477 did not take any corset down to Mr. Florsheim. In my last testimony, in interference suit, I was puzzled a little and made a mistake. Instead of saying January or February I said March.

MATILDA SCHILLING.

Subscribed and sworn to before me this 23d day of January, 1883.

JNO. C. MACGREGOR,
Notary Public.

Further taking of testimony here adjourned until 10 o'clock a. m., Wednesday, January 24, 1883, at same place.

WEDNESDAY, *January* 24, 1883.

Met, pursuant to adjournment, and by consent of counsel the taking of testimony is adjourned till 2 o'clock p. m., same day and place.

Met at 2 o'clock p. m.

WILLIAM ZIMMERMAN, the next witness, being first duly sworn, testified as follows:

Q. 1. What is your name, age, residence, and occupation?

A. William Zimmerman; age, 45; residence, Chicago; mechanical expert, solicitor of patents.

Defendant's counsel offers in evidence certified copy from the bound volumes of the United States Patent Office of the specification and drawing in the matter of the English letters patent granted John Mills March 14, 1815, No. 3894, for improvement in elastic stays, and the same is marked "Defendant's Exhibit No. 10."

Q. 2. Mr. Zimmerman, state, if you please, more particularly than you have done in what occupations during your lifetime you have been engaged and what has been your experience, if any, in regard to inventions and letters patent; state fully.

478 A. I received my education at Rensselaer Polytechnic Institute, where I studied mechanics, engineering, and drawing, and since I left that institute, now about twenty-three years, I have followed no other occupations, excepting a short time, than those mentioned, until within the last five years, since which time I have

devoted myself more particularly to the soliciting of patents, expert work, and the study of patent law in connection therewith.

Q. 3. Do you know the complainants and the defendants in this case?

A. Yes, sir; I have learned to know them since I became engaged in this case.

Q. 4. Have you read carefully the evidence and testimony taken by the complainants in this case, so as to have become familiar therewith?

A. Yes, sir.

Q. 5. Have you been present and have you attentively heard the testimony in this case thus far taken on the part of the defendant, so as to be familiar therewith?

A. Yes, sir.

Q. 6. By whom were you engaged in this case? And, if by the defendants, state for what purpose, in what capacity, and what have you done in pursuance of such engagement and when were you first so engaged.

A. I was first spoken to about this matter about the middle or end of August last, and after my vacation, which was during the last part of August and first part of September, Mr. Schilling spoke to me again about this matter, and in a day or two after that Mr. Schilling and Mr. Seigel came to me and spoke further on the same subject and employed me as an expert to look after their interest in this suit and do all I could in the matter for their defense.

Q. 7. That don't answer my question. I ask you what par-
479 ticular things in detail you were to do, what examination you was to make, what particular subjects you were to investigate, as such expert?

A. It was to examine, as I understood, the merits and claims of the plaintiff's patent and how they were answered, or, in other words, the novelty, merits, and validity of said patents, as I understood, as belongs to an expert's work.

Q. 8. Have you examined the various letters patent made exhibits on the part of complainants and defendant, studied carefully their language, their respective claims, the specifications, drawings, and the construction of the models contained therein, so as to be thoroughly familiar with them?

A. Yes, sir; I have studied them.

Q. 9. Please look upon Complainants' Exhibit "A," No. 238,100, and state, in general terms, what are its leading features, analyzing each feature and comparing them with the earlier exhibits offered in this case fully and particularly.

A. This exhibit is for a patent for a corset laced in the back and having elastic gores or sections on each side, extending from under the arms down over the hips throughout the entire length of the corset, and such elastic gores formed of two pieces of cloth sewed together by stitching so as to form tubes extending across the cloth to within a short distance of each longitudinal edge, so as to leave margins along each of said edges, and the said tubes arranged in groups, through which is passed a continuous coiled wire spring

passed through the first tube and in which the end of the spring is fastened, and its loose end passed through the next adjoining tube, and so on through such group and thence to the next group, and so on from group to group, and finally the other end of the spring is fastened in the last tube of the last group at the other end of such gore or elastic section, the cloth covering the springs
480 between the margins being folded or puckered before the springs are inserted, so as to give the desired degree of elasticity to such elastic section.

I find, on referring to the specification of said patent, that it says that "the object I have in view is such an improvement upon the corset shown in patent granted November 25, 1879, to Gustav Schilling and myself that while the same possesses all the advantages obtained by the use of covered and grouped metal spiral springs, it will allow an easier and more equal expansion of the entire corset." And further on, in line eighteen, page one, of the same specification, he says: "The improved corset also includes a better and cheaper method of securing the springs and forming the groups, whereby the elastic sections can be stitched in place by a machine without interfering with the springs." This statement has reference to the plain margins beyond the springs, and this feature is shown in patent No. 222,082, granted to Schilling & Florsheim, identical in every particular. The last sentence included in the above-quoted paragraph says: "And the elasticity of the sections cannot be injured by the stitching," and endeavors to convey the idea that continuous springs constructed as here described are new. In line 45 the expression "the central sections C D, on the sides of the corset," I regard as misleading, no side section D being shown; but in figure 5 the upper and lower pieces of cloths to form such a gore are marked C and D, the part of the structure to which the letter D refers being an entirely different thing. It also appears to be shown in figure 3 and in figure 4. The parts C and D are placed one above the other, and may and really, under the circumstances, can be referred to no other thing than the upper and lower cloths of the elastic section, and in so far I regard the specification as misleading. Again,
481 from line 45, on the same page, it says: "The central section C D, at the sides of the corset, which extend from under the arms down over the hips, instead of being made as usual, are constructed of two layers or thicknesses *a b*, of cloth or other material, which thicknesses *a b* are sewed or woven together a portion of their width to form horizontal tubes *c*," etc. Every idea of the foregoing statement is shown in patent No. 222,082, to Schilling & Florsheim ("Defendant's Exhibit No. 3"), in which, on page 1, column 2, line 24, they say: "The elastic strip C is composed of two pieces of cloth of about double the width of the space it is intended to occupy when puckered; across the two pieces, placed one above the other, rows of stitching are run so as to form tubes," etc.

Q. 10. State whether, in your opinion as an expert, the alleged invention described and claimed in that specification, in the patent No. 238,101, to which you have just alluded, is or is not so described therein as to enable a skillful person to put it in practice or an arti-

san to make and use it. And, if not, in what respects is such specification so defective?

A. I regard the description of patent No. 238,101 so defective in the details of its construction that it is not possible, from its description, to intelligibly understand and construct the same. In this patent the cloths or cloth is described as woven with tubes therein for the coiled-wire springs, said tubes running across the middle portions of the cloth so as to leave margins on the ends of said tubes, and in figure 6 of the specification a side view of a coiled-wire spring intended for such tubes in said woven sections is shown; and an end view of a split tube is shown, as explained in the specification, into which tube two or three coils of the end of the spring are passed so as to hold it instead of stitching it to the cloth; but no space or tube or any arrangement is shown across the sections, woven or otherwise constructed, to hold said split tube
which is designed to hold and fasten the ends of the
482 springs in their place. As I have said before, there is a margin shown on the ends of the tubes, and that is a single thickness. There is, therefore, no place whatever shown on those cloths to hold such tubes or other fastenings, as described in the specification. I can see no other way than to put them on the outside of such cloth, and then the springs contained in the tubes cannot be fastened to such split tubes or other fastening described without first cutting holes into the cloth tubes at their ends to let the spring through, and it would also be necessary to cut holes at one end of such tubes before the coiled-wire springs intended to be placed in them could be inserted, and it would furthermore be necessary to cut holes into the other ends of the cloth tubes to let out the springs so that they could be fastened at that end. In figure 4 of the drawing a sectional view is given of one end of the coiled springs and the tube or fastening for the same; but with all this I would be at a loss, after all the study I have given to this subject, how the inventor meant that such elastic gores should be constructed. I do not believe that a man learned in the art of making elastic gores could take this specification and drawings and make such an article without inventing, contriving, and adding ideas of his own.

Q. 11. Look upon "Defendant's Exhibit No. 10," being the English patent No. 3894, issued to John Mills, March 14, 1815, for improvement in elastic stays, and also the patent No. 238,100, issued to Mr. Florsheim, February 22, 1881, being "Complainants' Exhibit A," and state if, in your opinion, any portion of the invention claimed by Florsheim in his patent No. 238,100 is covered by or included in that English patent of 1815; and, if so, what portions are so covered or included.

A. In the first place, patent to Florsheim, No. 238,100, is broadly
for a corset laced in the back and having elastic side sec-
483 tions C D extending from under the arms down over the hips through the entire length of the corset, said sections being made elastic. In British patent No. 3894, of 1815, granted to John Mills, I find a corset laced in the back and provided with an

elastic section in its front extending through its entire length. I regard the function performed by this elastic section identical in every particular with that shown in patent to Florsheim just spoken of. There is no special advantage specified or claimed in Mr. Florsheim's patent in having such elastic sections placed one under each arm; they might be placed, for all I can see, in any other portion, from the lacing in the back to the front of the same, and the end obtained would be identical with that of the English patent now spoken of. We may conceive, for the sake of illustration, the gore in the English patent divided into two parts longitudinally, and each separately sewed into the same corset here shown, and moved sideways from the central position until each piece is finally located under the arms, so as to appear as shown in Mr. Florsheim's patent, and it is impossible to conceive how, under the variety of positions in which these two sections may be placed until they are finally under the arms, how the results attained from such construction or modification would vary from that shown and claimed in Mr. Florsheim's patent. The construction in detail of the elastic gores and springs therein do not enter into the consideration in comparing these two inventions. Broadly, therefore, the functions of one corset are identical with that of the other.

Further taking of testimony here adjourned until 10 o'clock a. m., Thursday, January 25, 1883, at same place.

484 THURSDAY, *January* 25, 1883.

Met pursuant to adjournment.

Present: As before.

Examination of WILLIAM ZIMMERMAN resumed:

Q. 12. Look upon Complainant's Exhibit "A," being the patent to Florsheim & Ball, February 22, 1881, No. 238,100, for improvement in corsets, and also Defendant's Exhibit No. 5, being the English patent granted to James Miller and James Miller, Jr., December 31, 1866, No. 3451, for improvement in elastic gussets, and state what is claimed as the invention of Simon Florsheim in that patent No. 238,100 as to the springs in corsets and margins.

(Question objected to.)

A. In the patent to Florsheim, No. 238,100, the first claim reads that it is for "an elastic section composed of two thicknesses of cloth or other material, *a b*, having tubes *c*, in combination with the spiral metal springs E, enclosed by such tubes and arranged in groups to regulate the elasticity of the section, such groups being all composed of a single continuous spring passed back and forth through the tubes and secured at its ends." In English patent.

Counsel for defendant says, "I don't ask you about the English patent. I simply asked as to the springs and margin claimed in the patent No. 238,100."

(Answer objected to because it purports to quote the first claim of the patent referred to and only quotes a portion of it, the words

"in a corset" and the words "substantially as described and shown" being omitted.)

Q. 13. Does that state anything with regard to a margin?

A. It does.

Q. 14. What is it?

A. I will give the two first claims, so as to include the margin. The first claim of Florsheim's patent, No. 238,100, reads as
485 follows: "In a corset an elastic section composed of two thicknesses of cloth or other material, *a b*, having tubes *c*, in combination with the spiral metal springs E, inclosed by such tubes and arranged in groups to regulate the elasticity of the section, such groups being all composed of a single continuous spring passed back and forth through the tubes and secured at its ends, substantially as described and shown." And the second claim of said patent reads as follows: "An elastic section or gore composed of material having tubes extending only part way across the same, and plain margins outside of said tubes, and spiral metal springs arranged in groups in such tubes, the springs of the several groups being made continuous, substantially as described."

Q. 15. Do I understand you, then, to say that the inventions claimed in that patent No. 238,100 as the invention of Simon Florsheim are principally the continuing springs and the plain margin? And if any others, please state what they are.

(Question objected to because the witness has made no such statements, but has read the claims, which show for themselves that each claim covers certain combinations in certain relative positions.)

A. They are the continued spiral metal springs, plain margins, the springs being arranged in groups and the section so constructed, as understood from the specification, as to allow of a limited degree of elasticity to such section.

Q. 16. Have you carefully examined the English patent No. 3451, of 1866, above spoken of?

A. I have.

Q. 17. State what the invention in that patent consists of and how, if at all, and in what respects, if any, the inventions claimed by Florsheim in his patent, 238,100, are identical with or covered
486 by the inventions and claims contained in and secured by said English patent. State fully and particularly.

A. The English patent referred to is described as an elastic gore or section intended to be used in various articles, among which are mentioned corsets or stays, as they are termed in the English patent; and said elastic section is described as being composed or constructed of two pieces of cloth or leather stitched together on a sewing-machine by rows of stitching so made as to form across such section parallel tubes so as to leave a margin beyond the ends of the tubes along each longitudinal side of the section. Said section is then, by means of a machine or hand, shrunk or puckered together over the tubes which are opened, and into which is inserted a cord or strand of India rubber, one end of which is fastened to the first tube at one end

of such section, and the other end of said cord is then passed back and forth alternately through each successive tube until finally it is fastened to the last tube of the other end of the section, and when so constructed it forms an elastic gore or section having a limit of elasticity depending on the amount of puckering or shrinkage given to the tubes and a resistance proportionate to the strength and strain of the elastic cord or strand arranged in said tubes. We therefore have a gusset or elastic section composed of tubes, springs, and plain margin at the end of such springs. The tubes are not described in this patent as being arranged in groups. This point of difference is simply what any workman familiar with such business would naturally do, because it would simply be leaving out some of the springs, because the gusset would be too strong if all the tubes in the section would be provided with springs, and this idea is furthermore shown in Exhibit No. 3, patent to Schilling & Florsheim, patented November 25, 1879.

487 There is one other feature of difference between the patents now spoken of, and that is that the springs in Mr. Florsheim's patent are coiled wire, while those of the English patent are India rubber.

I consider the functions of these two kinds of springs identical; each performs the same office in precisely the same way.

Q. 18. After your examination of these two patents last named, namely, the English patent and the patent 238,100, I ask you, as an expert in regard to those continuing springs, whether, in your opinion, there is any novelty of invention in the substitution of the coiled-wire springs for India rubber.

(Question objected to as asking for a conclusion instead of facts that would assist the court in drawing conclusions. The expert should give facts as to comparative durability, comparative adaptability to ventilation, and comparative merits of each for this particular purpose, and how each are affected by the warmth and moisture of the body, and similar qualities which induce these defendants to used coiled-wire springs instead of rubber cord.)

A. There is none whatever, in my opinion; nor have I ever known it to be considered an invention to substitute one mechanical equivalent for another.

Q. 19. Look at Complainants' Exhibit B, No. 238,101, being the patent issued to Florsheim and Ball, February 22, 1881, for improvement in elastic gores, gussets, etc., for wearing apparel, and state what is claimed therein as the invention of Simon Florsheim in regard to the fabric or material therein mentioned into which the metal springs are introduced.

A. This question relates more particularly to claim 3 of the said patent, which I will now answer, leaving the other claims of the patent to be answered when I speak more particularly of the claims of this patent.

488 Claim No. 3 of this patent is for "an elastic gore, gusset, or section composed of a covering material woven with the tubes therein of a particular pattern to suit the location where the

elastic gore, gusset, or section is intended to be used, such tubes not extending to the edges of the covering material and spiral metal springs inclosed by such tubes and stayed by the covering material at the ends of the tubes, substantially as described and shown." The only difference in this claim with the others of the patent is that the covering material is woven, with tubes therein, of particular pattern to suit the location where the elastic gore, gusset, or section is intended to be used. The validity of this claim rests, therefore, on two points: First, that the material covering the tubes is woven, and, second, that it is woven of a particular pattern to suit the location where it is intended to be used. The main point of novelty suggested in this claim is that the covering material of the tubes shall be woven.

Further taking of testimony is here adjourned till 2 o'clock p. m. same day and place.

Met pursuant to adjournment.
Present as before.

Examination of WILLIAM ZIMMERMAN resumed:

Q. 20. Examine the article now exhibited to you. State what it is.
A. It is an elastic section or gore, or rather an elastic fabric which may be used for a gore, and is apparently intended for corsets.

Defendant's counsel offers the article spoken of by the witness as an exhibit and the same is marked "Defendant's Exhibit No. 11."
(The introduction of this last article as an exhibit is objected to.)

Defendant's counsel ask counsel for complainants and the
489 complainants themselves, who are both of them now present, to produce the exhibits heretofore put in evidence by them in this case, and says, Gentlemen, will you please produce them?

Counsel for complainants appreciates the courteous request made by the learned counsel for the defendant, who makes his request for the first time spread on the record; that there is no earthly objection to his having the exhibits; that, in fact, I do not know but that he had all the complainants' exhibits; that he had been using part of them, and that the exhibits have been in charge of the magistrate and are now in his charge, and the complainants and their counsel give consent, if defendant's counsel thinks it necessary, for him to get whatever exhibits he has not already obtained from the magistrate he may desire to use.

Defendant's counsel says that the only exhibits of the complainant he has had or used are the two letters patent—Exhibits A and B; that what he now desires is to have the other exhibits of the complainants, namely, the corset or corsets, gores, and material, put in evidence by them, and counsel for complainants having stated that they are in possession of the magistrate, which he understands to mean the examiner, he most respectfully requests such examiner to produce them.

The examiner here adjourned the taking of testimony to procure the exhibits asked for by defendant's counsel.

The examiner returning, after a few moments' absence, with sundry exhibits, the examination of witnesses resumed.

Q. 21. Look at complainants' exhibit, "Complainants' Corset;" also examine complainants' exhibit marked "Complainants' Exhibit Defendant's Corset," and also examine complainants' exhibit marked "Complainants' Exhibit Perrien Dean," and state whether the fabric or material comprising the gore or gores in those several corsets is stitched or woven together.

490 A. The fabric composing the gore in the several corsets asked about is stitched together in all of them.

Q. 22. In reference to the woven fabric claimed in complainants' patent No. 238,101, is there any novelty in that?

(Question objected to as leading and because it asks for a conclusion.)

Question waived.

Q. 23. In regard to the woven cloth spoken of by you and claimed in the patent No. 238,101, state your discoveries, investigations, and experiences, if any, as to the novelty or otherwise of such woven fabrics.

Question objected to because the patent does not claim the woven fabric and because the foundation for proving by this witness any want of novelty is not made in the answer.

Counsel for defendant asks the counsel for complainants if he intends to disclaim all priority of right in the use of woven fabric.

He certainly claims for his client only what is made the subject-matter of the claims of the patents declared on in this suit.

Defendant's counsel respectfully asks complainants' counsel whether he will frankly state whether the complainants' patent does, in his opinion, cover the woven fabric or material, as we do not desire to protract this examination upon claims not insisted upon on the other side.

Counsel for complainants does frankly admit that fabrics have been woven long prior to the Florsheim patent, and that corsets have been made of cloth woven, but does not waive any rights by such admission under any of the claims of either of the patents declared on in this suit.

A. Such fabric, as I understand from the patent No. 238,101,
491 is woven in the loom at the same time that the whole fabric is made. It is done in one operation on looms particularly constructed for such purpose, which have long been known to every experienced weaver of such material, and I have found such looms described in Knight's Dictionary of Mechanics, in vol. I, on page 629, where, under the heading "Corset-making machine," of which I will read such portion as I find applicable to the matter in question. It reads: "A loom for weaving fabrics, having an undulating contour of varying dimensions. It is arranged to make tubular spaces for the introduction of whalebones. In the machine exhibited at the French exposition in 1867 the principle of a constant length of travel for the shuttle was adopted for the sake of simplicity, but, as

it is necessary in weaving the gores that the weft thread should pass through only a part of the breadth of the warp, the jacquard has been employed for the purpose of taking up the portion of the warp required to be woven in that part. As the shuttle always passes over the full breadth of the warp, of which only one portion—say one-third—is to be used, it unwinds the full length of weft thread from the bobbin, but only one-third of it is tied in the warp. In repassing the shuttle one-third more is tied, thus leaving one-third on the unemployed weft thread in the form of a loop upon the article manufactured." This, I believe, fully explains how the gore or gusset, or section composing the covering material stated to be of a particular pattern in the third claim of said patent, is woven, and also tells that such gores are woven with tubes therein; and, further, now, on page 724 of same book, under the heading "Double-cloth loom," I will quote the following passage: "One for weaving two sets of webs simultaneously. These may be connected at certain parts and cut apart subsequently and so form a series of under garments. In another form the two webs are so knitted as to form a tube, being jointed at their edges. At certain intervals
492 both webs are thrown into one flat web of double thickness and then again separated, forming a tube as before. The completed web is then cut apart midlength of the double portion and also midlength of the two double portions, and the result is a number of bags with closed bottoms." This last description will answer to the construction of the woven gores described in the patent No. 238,101, the tubes, of course, being woven larger in proportion to the single thickness of cloth, and when they are cut apart we would obtain a number of bags constructed exactly like those described and made on the loom just spoken of. I also recollect seeing corsets woven in one entire piece, with spaces for the steel and whalebone, years ago, and have, from inquiry among weavers familiar with such work, learned that such work was done at least fifteen years ago.

(Answer objected to as immaterial and irrelevant.)

Q. 24. In the construction or manufacture of the several corsets now examined by you, complainants' exhibits above mentioned, what difference, if any, would it make whether the fabric or material of which the gores containing the springs are composed was stitched or woven, so far as utility, appearance, or desired results are concerned?

A. None whatever, so far as appearance or desired utility are concerned.

Q. 25. You may now state the general nature of the inventions in controversy in this suit, comparing the merits and similarities of the different patents with each other as to their respective merits and novelties—that is, patents Nos. 238,100 and 238,101 and 222,082 of Schilling & Florsheim with the English patents Nos. 3894 of 1815 and 3451 of 1866—omitting such opinions, facts, or details as you have already given—that is, I want you to state facts, if any, which you have not heretofore given.

493 A. The controversy in this suit I understand to be, first, over a corset laced in the back and provided with elastic sections or gores extending from under the arms through its entire length; second, an elastic gore or section provided with puckered tubes in which is a continuous metallic spring and plain margins beyond the ends of the tubes; and, third, an elastic gore or section in which the cloth is woven with the tubes therein, and having plain margins beyond the ends of said tubes, and the tubes provided with coiled-wire springs and fastened in the section, which section is made of a particular pattern. In regard to the claims, first of patent No. 238,100, I consider claim one of said patent fully anticipated by English patent 3451 of 1866. Claim one of patent No. 238,100 is for "an elastic section composed of two thicknesses of cloth or other material, *a b*, having tubes *c*, in combination with spiral metal springs E inclosed by such tubes and arranged in groups to regulate the elasticity of the section, such groups being composed of a single continuous spring passed back and forth through the tubes and secured at its ends." In the English patent No. 3451 of 1866 the elastic section is composed of two thicknesses of cloth or other material, has tubes *c*, springs E, inclosed by such tubes, and they are specified to be more or less numerous, as required. Besides all this, the arrangement into groups is anticipated by Schilling in patent No. 204,712 for gaiters and patent to Schilling & Florsheim for corset, No. 222,082, and which fact is conceded by Florsheim in line 12, page 1, of his own specification, where he says his object is to improve on the patent to Schilling & Florsheim, and that while this (Florsheim's) improvement "will possess all the advantages obtained by the use of covered and grouped metal spiral springs, etc."

494 The single continuous spring is described in the English patent already referred to. There is only this difference between the two inventions, as already stated, one spring being made of rubber and the other of coiled wire. Claim 2 of patent 238,100 is for an "elastic section or gore composed of material having tubes extending only part way across the same, and plain margins outside of said tubes, and spiral metal springs arranged in groups, being made continuous, substantially as described." This claim is identical in all its features, except that it does not specify how the tubes are made; but that is implied. It is, therefore, broader, and is, in reality, a generic claim; for, under its terms, any material having tubes, whether cloth or leather, or other like material with tubes in it, no matter how made, whether stitched or woven together, will come within its meaning. In every other particular its meaning is exactly like that of the first claim, and it is completely anticipated in patents 222,082 and 214,712; and also in English patent 3451 of 1866. The third and last claim of the patent has already in part been spoken of. We will pass to the claims of patent 238,101, which is substantially answered by claim 1 of patent No. 238,100, because each shows "an elastic gore composed of covering material having tubes, spiral metal springs inclosed by such tubes and extending to the edges of the covering material and stayed at their ends by such covering material, and inelastic margins

outside of the springs." And, further, claim 1 of the last patent is far broader and more generic in its scope than patent 238,100. Claim 1 of patent No. 238,101 is also completely answered by British patent No. 3451 of 1866, because it contains the same elements, arranged and constructed in the same manner and performing the same functions.

Claim 2 of this patent No. 238,101 is identical with claim 1, except that it adds that the covering material is puckered over the springs,
495 which fact is taken to be self-evident from the nature of the specification, and it is also fully answered by claim 1 of patent No. 238,100 for the same reasons that have already been given why the first claim was answered by said British patents. In fact, claim 2 of patent 238,101 is a generic claim of claim 1 of patent 238,100. It is far broader in its scope than that of the former patent, and it, like claim 1, must therefore be void, covering not only more than could by any event rightfully belong within the scope of patent No. 238,100, but every feature is fully and completely answered in British patent No. 3451 of 1866.

Further taking of testimony here adjourned until 2 o'clock p. m. Friday, January 26, 1883, at same place.

FRIDAY, *January* 26, 1883.

Met pursuant to adjournment.
Present: As before.

Examination of witness, WILLIAM ZIMMERMAN, resumed, as follows:

The third claim of patent 238,101 is for "an elastic gore, gusset, or section composed of a covering material woven with tubes therein, of a particular pattern to suit the location where the elastic gore, gusset, or section is intended to be used, such tubes not extending to the edges of the covering material, and spiral metal springs enclosed by such tubes and stayed by the covering material at the ends of the tubes, substantially as described and shown." It is intended by this claim to include a plain margin, spiral metal springs, which are covered by the tubes, these parts being implied in its terms, and therefore exactly like claims 1 and 2, except in addition that said covering material is woven with tubes therein of a particular pattern to suit the location where the elastic gore, gusset, or section is intended to be used, etc. The terms, therefore, imply that the covering mate-
496 rial must be woven, and also that this must be of a particular pattern, but how it is to be so woven we are not informed in the specification.

I conclude, therefore, that this claim is not based on any intelligible description found in the specification, and all the intelligible parts are answered by claims 1 and 2.

Claim 4 reads as follows: "In an elastic gore, gusset, or section, the combination of the covering material made of double thickness and having tubes not extending to the edges of the covering material with spiral metal springs enclosed by such tubes and fastenings

extending across the ends of the tubes between the thicknesses of the covering material, substantially as described and shown."

In the first place, the covering material in the claim is spoken of as a double thickness. In the specification it is spoken of as a covering material or single covering material provided with covering tubes formed or woven therein in the process of manufacture or weaving of the covering material. In figure 1 and 2 of the drawing the material is so shown; a single thickness with tubes therein. In figure 4 one end of the springs is shown in section, a part of the covering material being cut away to expose the ends of the springs; but from the drawing it is not possible to see or understand whether the margin *b*, outside of the springs, is single or double. The representation of the end *a* at the other end of the springs of said figure is exactly like it, and the springs there are shown covered in the tubes of the fabric. From this I must say that the specification and drawing answering to this claim is imperfect and cannot be understood. Of the fastenings spoken of in the specification, the tube C is shown fastened to the end of a group of four springs in figure 4, but how it is got into the covering into its place cannot be ascertained either from the description or drawing, or both taken
497 together, unless holes should be cut into the ends of the woven tubes, and then it is not possible to understand clearly how the springs and tubes are to be united together so as to operate properly in the completed structure.

I wish to add here that the specification also speaks of fastening the ends of the springs by small plates pushed between the coils. The claim, therefore, in respect to the fastenings at the ends of the springs does not seek to confine itself to any particular one of these fastenings, but is general in this respect, and claims all other fastenings other than that by stitching. This construction of the gore and fastening of the springs is only possible when the sections are made of double thickness; then the margins may be thrown back and the fastener C attached. I consider that the device for fastening the ends of the springs mentioned in the specification are such as would suggest themselves to any competent workman, if the springs were intended to be fastened by any other method than that of stitching them to the covering material.

Furthermore, I consider neither of them an improvement over stitching the springs to the cloth for the reason that they are not practical and would never be used beyond a first experiment because such fastenings would extend lengthwise with the body of the wearer of the article, and any slight bend of the body against these fastenings would cause their ends to pierce through the cloth covering and cause pain and injury to the wearer thereof. Furthermore, the claim is broad enough to embrace cloths sewed together. With the exception of the fastenings mentioned in the 4th claim, I regard every claim of this specification fully answered in British patent No. 3451, which is an elastic gore composed of covering material having puckered tubes and springs enclosed by such tubes and plain margins beyond the ends of such springs and stayed by the covering material.

498 I wish to refer again to British patent No. 3894 of 1815, and say that the position of the springs shown to be in the front part so as to come over the chest of the wearer where the expansion of the chest is greatest is, therefore, in the best possible position that such a section or gore could be placed in, and will therefore perform its functions better than a corset with elastic gores placed under each arm. I will also add that I omitted to speak of the fact that a plain margin is shown on each side of this elastic section or gore shown in this drawing, and that in the specification of this patent coiled-wire springs are mentioned as being used.

In reviewing the various exhibits, models, and patents I find that the cloth covering for the springs have been woven for such purposes long prior to the dates of these patents in controversy; that metal springs for such purposes have been used as early as 1815; that continuous springs have been used since 1866; that the grouping of the springs was first mentioned and shown in Mr. Schilling's patents in 1879 for gaiter gores and for corsets, and that the elements constituting the essential features of patents 238,100 and 238,101 are old, each and every one of them, and that they are not combined in any new way or in any way to produce a new result.

Q. 26. Look upon exhibit "Defendant's Exhibit No. 9"—I refer to the wire forming part of that exhibit—and state what you call that wire.

A. The wire is brass.

Q. 27. I don't refer to the material, I refer to the kind of wire—whether it is coiled or otherwise?

A. It is a coiled-wire spring. I suppose that is the answer you wish.

Cross-examination — L. L. COBURN, Esq.:

499 X Q. 1. You stated in your examination that complainants' patent No. 238,100 was for a corset laced in the back, with elastic sections at the sides extending from under the arm down the entire length of the corset, and that you found this claim met substantially by the English patent of 1815. Which claim of this complainants' patent covers the invention thus specified by you?

A. I consider that the first claim more particularly covers that idea. The only difference between this claim and the English patent of 1815 is that the springs are arranged in groups. In every other respect the two ideas are identical.

X Q. 2. We are talking about structures, not ideas. Is not the first claim of this patent limited in the structure of the elastic gore to the use of a continuous spring passing back and forth, and do you find that in the English patent of 1815?

A. I will first correct the statement made in my last answer and substitute for the word "ideas" the word "structure," for that is what I meant. I am aware that the claim is limited to a continuous spring, but what I meant was that the functions of the springs in the two patents spoken of are identical.

X Q. 3. Then you do not mean to be understood, do you, that

the first claim of this patent No. 238,100, limited both in location and form of the elastic section and to the special construction of said sections to the use of spiral metal springs E, arranged in groups and composed of a continuous single spring passing back and forth through the tubes, is met by the English patent of 1815?

A. I do not mean to say that is merely the English patent of 1815, for the reason that the elastic gore or section composed of a single continuous spring passed back and forth through puckered tubes, formed by stitching two pieces of cloth together so as to leave a plain margin, is answered by the British patent 3451 of 1866, and that the difference in substituting one material for another in
500 said British patent and the grouping of the tubes is nothing more than what any intelligent workman would do, and that the elastic gore so changed is old.

Counsel interrupts witness to call his attention to the question, and to say that if he understands the question asked him, anything about the British patent of 1866 or calls for an argument in reference to grouping that, he don't care to continue the examination, because witness can't understand the English language, and that if he does understand the question to relate only to the British patent of 1815, and allows his zeal for his client to so far overcome his duty as a witness as to cause him to inject into every answer an argument covering the entire ground, counsel does not desire to further examine such a witness.

Counsel asks to have the question re-read, and requests the witness, if possible, to answer it first by yes or no, followed by such explanation as he may desire to make, so as to give a full and intelligent answer to the question.

Defendant's counsel objects to the interruption and language used and the insinuations thrown out against the witness on the stand by the counsel as improper, unwarranted, and uncalled for; that the witness has the right to be treated as a gentleman, and to be protected in his examination as such.

(X Q. 3 re-read.)

A. I do mean to say that it is met by the English patent of 1815 for good reasons.

X Q. 4. Do you find in the English patent of 1815 a single element of that first claim of complainants' patent, with the exception of the corset laced in the back? And, if so, name in this present answer one of them and only one.

A. Yes, sir; it is the elastic section or gore.

X Q. 5. Is it your opinion that that first claim of com-
501 plainants' patent contains, as one of its elements, an elastic section or gore, and have you experted this case upon that supposition?

(Question objected to.)

A. It is my opinion that that first claim contains, as an element, an elastic gore constructed in a particular manner, and I have experted this case upon that supposition.

X Q. 6. Then you find, do you, that the elastic gore in the British patent of 1815 is constructed in the particular manner that the elastic gore in the complainant's patent 238,100 is constructed and made an element of this first claim?

A. No, sir; I never said it was constructed in the same particular manner, but that the functions of the two gores were identical.

X Q. 7. Is it sufficient to anticipate or meet an element in the claim, in your opinion, to have the functions the same, and have you experted this case with that understanding?

A. I do not understand your question distinctly.

X Q. 8. You appear to say that the elastic section in the old English patent of 1815 anticipates the elastic section specified in claim 1 of this complainants' patent, and also state that claim 1 limits its elastic section to a special construction, which you also say you have never claimed or stated to be shown in the old English patent; but they are the same because they perform the same function. Now, I ask you if you understand that performing the same function is sufficient to have an old element meet and anticipate a special element in a combination claim of a patent, and whether you have experted this case with that understanding.

A. So far as the two structures as a whole are concerned, a corset laced in the back and provided with an elastic gore or gores—I mean to say that the function of one is just like that of the other.

502 So far as the details of the elastic section are concerned, they are different, and must be met by other references.

X Q. 9. Then it is your opinion, is it, that this claim 1 of patent 238,100 is limited in one of its elements to an elastic gore constructed in a special manner?

A. Yes, sir.

X Q. 10. And it is your opinion, is it, that the elastic gore shown in the old British patent of 1815 is not constructed in that special manner?

A. No, sir; it is not constructed in that special manner.

X Q. 11. Then is it your opinion that this first claim of patent 238,100 is met, so far as that particular element of it is concerned, viz., its elastic section constructed in the special manner, by the old British patent of 1815?

A. No, sir.

X Q. 12. Do you consider this element, viz., the elastic section constructed in the special manner, an important element in that first claim of patent 238,100?

A. Yes, sir; the whole claim, as I understand it, is for an elastic section made in a particular manner.

X Q. 13. You have stated two or three times in your direct examination that you considered this first claim to be for an elastic section, etc. Does not that claim specially combine that elastic section constructed in a particular manner with a corset laced in the back, and further limit the invention to the sections being placed in a particular part of the corset and arranged in a specific way?

A. No, sir; I do not think that this claim says anything about a corset being laced in the back, nor that with the lacing in the back

the elastic sections are placed in any particular position, but it claims an elastic section in a corset, no matter where it is placed, but constructed in a particular manner.

503 X Q. 14. Then do you still find that this first claim is met or anticipated by this old English patent of 1815, whose elastic section, you say, is not constructed in the particular manner called for by this claim?

A. No, sir; I think this claim is specific in that respect, and, so far as its special structure is concerned, it is not met by the British patent of 1815.

Further taking of testimony is here adjourned till 2 o'clock p. m., Saturday, January 27, 1883, at the same place.

SATURDAY, *January* 27, 1883.

Met pursuant to adjournment, and, by consent of counsel, the further taking of testimony is adjourned until 2 o'clock p. m., Monday, January 29th, 1883, at same place.

MONDAY, *January* 29, 1883.

Met pursuant to adjournment, and cross-examination of witness, WILLIAM ZIMMERMAN, resumed.

X Q. 15. Do you find all the elements which are made the subject-matter of the second claim of complainants' patent 238,100 are contained in the old British patent of 1815 in such form that said old British patent anticipates or answers this second claim of complainants' patent?

A. I find all the elements of the British patent contained in the said second claim of patent 238,100 except these, that the springs are arranged in groups, and, instead of being made continuous, as in Mr. Florsheim's patent, the springs are single, being one for each tube of the section.

504 X Q. 16. You mean to say, then, do you, that you do not find all the elements composing the subject-matter of the second claim of complainants' patent No. 238,100 in the old British patent of 1815?

A. Yes, sir; that's what my answer means.

X Q. 17. Then do you find that the said old British patent of 1815 anticipates or answers this second claim of complainants' patent No. 238,100?

A. No, sir; I do not.

X Q. 18. Do you find all the elements which compose the third claim of complainants' patent 238,100 in the old British patent, 1815, in such form of construction as to cause the old British patent of 1815 to meet and anticipate this third claim of complainants' patent No. 238,100?

A. No, sir; it, like the preceding claims, is modified and limited by other elements not shown in said British patent of 1815.

X Q. 19. You stated in your direct examination that the drawing of old British patent of 1815 showed a margin at the end of the springs. Will you refer to the 4th page of the specification of said

patent, as copied in "Defendant's Exhibit No. 10," and state what you find the description there to be in reference to the manner in which these springs are fastened into the stay?

A. On the fourth page of said British patent, beginning at line sixth from the top, the inventor says: "These I place close together in runners or places stitched in between the two pieces or layers of silk, satin, or other fit material, puckered or quilted loosely to give room for expansion; the ends of the springs and their covering of silk, satin, or other matter on them sewed or otherwise fastened to and between the two half pieces of the stay previously made of the usual materials, such as jean or other cotton, linen, silk, woolen, or leather, with the proper busks or other necessary portions of steel, whalebone, or other substance commonly adopted, calculated
505 to distend the stay and brace and support the body. The busk may be varied in substance, width, or direction according to the will or necessity of the wearer."

X Q. 20. Do you not understand, from this language first quoted by you, that the ends of the springs are sewed between the pieces composing the body of the stay?

A. No, sir; I can make no such construction from this language, for it says, after the first semicolon, "the ends of the springs and their covering of silk, satin, or other matter on them, sewed or otherwise fastened to and between the two half pieces of the stay previously made." Taking this language to explain the drawing, and the drawing in this part of the specification explaining each other, I understand the inventor to say distinctly that the ends of the springs are fastened to their covering material. They certainly must be fastened somewhere, either at the outer edges or somewhere near the edges of the covering material, and, taking that fact into consideration in connection with the drawing, I think there is no doubt at all but that a plain margin is clearly meant to be shown. The drawing is made exactly as I would have shown it had I made it myself, and the springs, with margins, shown in the patents 238,100, to Florsheim, and 222,082, to Schilling and Florsheim, are shown in precisely the same way, so that I think my construction on the language quoted from British patent of 1815 and interpretations of the drawings therein shown is correct.

X Q. 21. What are "the two half pieces of the stay previously made" referred to in your last answer as explained by the language of the British specification above quoted? What parts of the stay do you understand that language refers to?

A. Why, "the two half pieces of the stay" referred to are the upper and lower halves covering the springs into which the tubes or channels are stitched.

506 X Q. 22. Do these pieces contain the whalebones and the busk?

A. No, sir; the elastic section does not contain whalebone. I do not understand the language quoted from this part of the specification to convey any such meaning.

X Q. 23. Are there not shown in these drawings and described in the specification two half pieces composing the stay, each half piece

the elastic sections are placed in any particular position, but it claims an elastic section in a corset, no matter where it is placed, but constructed in a particular manner.

503 X Q. 14. Then do you still find that this first claim is met or anticipated by this old English patent of 1815, whose elastic section, you say, is not constructed in the particular manner called for by this claim?

A. No, sir; I think this claim is specific in that respect, and, so far as its special structure is concerned, it is not met by the British patent of 1815.

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MONDAY, *January* 29, 1883.

Met pursuant to adjournment, and cross-examination of witness, WILLIAM ZIMMERMAN, resumed.

X Q. 15. Do you find all the elements which are made the subject-matter of the second claim of complainants' patent 238,100 are contained in the old British patent of 1815 in such form that said old British patent anticipates or answers this second claim of complainants' patent?

A. I find all the elements of the British patent contained in the said second claim of patent 238,100 except these, that the springs are arranged in groups, and, instead of being made continuous, as in Mr. Florsheim's patent, the springs are single, being one for each tube of the section.

X Q. 16. You mean to say, then, do you, that you do not
504 find all the elements composing the subject-matter of the second claim of complainants' patent No. 238,100 in the old British patent of 1815?

A. Yes, sir; that's what my answer means.

X Q. 17. Then do you find that the said old British patent of 1815 anticipates or answers this second claim of complainants' patent No. 238,100?

A. No, sir; I do not.

X Q. 18. Do you find all the elements which compose the third claim of complainants' patent 238,100 in the old British patent, 1815, in such form of construction as to cause the old British patent of 1815 to meet and anticipate this third claim of complainants' patent No. 238,100?

A. No, sir; it, like the preceding claims, is modified and limited by other elements not shown in said British patent of 1815.

X Q. 19. You stated in your direct examination that the drawing of old British patent of 1815 showed a margin at the end of the springs. Will you refer to the 4th page of the specification of said

patent, as copied in "Defendant's Exhibit No. 10," and state what you find the description there to be in reference to the manner in which these springs are fastened into the stay?

A. On the fourth page of said British patent, beginning at line sixth from the top, the inventor says: "These I place close together in runners or places stitched in between the two pieces or layers of silk, satin, or other fit material, puckered or quilted loosely to give room for expansion; the ends of the springs and their covering of silk, satin, or other matter on them sewed or otherwise fastened to and between the two half pieces of the stay previously made of the usual materials, such as jean or other cotton, linen, silk, woolen, or leather, with the proper busks or other necessary portions of steel, whalebone, or other substance commonly adopted, calculated
505 to distend the stay and brace and support the body. The busk may be varied in substance, width, or direction according to the will or necessity of the wearer."

X Q. 20. Do you not understand, from this language first quoted by you, that the ends of the springs are sewed between the pieces composing the body of the stay?

A. No, sir; I can make no such construction from this language, for it says, after the first semicolon, "the ends of the springs and their covering of silk, satin, or other matter on them, sewed or otherwise fastened to and between the two half pieces of the stay previously made." Taking this language to explain the drawing, and the drawing in this part of the specification explaining each other, I understand the inventor to say distinctly that the ends of the springs are fastened to their covering material. They certainly must be fastened somewhere, either at the outer edges or somewhere near the edges of the covering material, and, taking that fact into consideration in connection with the drawing, I think there is no doubt at all but that a plain margin is clearly meant to be shown. The drawing is made exactly as I would have shown it had I made it myself, and the springs, with margins, shown in the patents 238,100, to Florsheim, and 222,082, to Schilling and Florsheim, are shown in precisely the same way, so that I think my construction on the language quoted from British patent of 1815 and interpretations of the drawings therein shown is correct.

X Q. 21. What are "the two half pieces of the stay previously made" referred to in your last answer as explained by the language of the British specification above quoted? What parts of the stay do you understand that language refers to?

A. Why, "the two half pieces of the stay" referred to are the upper and lower halves covering the springs into which the tubes or channels are stitched.

506 X Q. 22. Do these pieces contain the whalebones and the busk?

A. No, sir; the elastic section does not contain whalebone. I do not understand the language quoted from this part of the specification to convey any such meaning.

X Q. 23. Are there not shown in these drawings and described in the specification two half pieces composing the stay, each half piece

made just like the other half, and do not these half pieces contain the whalebone and busk, and is not the front elastic gore or piece sewed or otherwise fastened to these half pieces of the stay, which are previously made of the same material, and in reviewing the part of the British specification above referred to is it not your opinion, as an expert, that the inventor, by stating that "the ends of the springs and their covering—silk, satin, or other matter (material)—on them sewed or otherwise fastened between the two half pieces of the stay previously made," expressly says that the ends of the springs and their covering material are sewed or otherwise fastened to the two halves of the stay, and does not say, as you have above explained, that the ends of the springs are fastened to their covering material; and, if you are still of the opinion that you were correct in your last two answers, are you as certain of it as you are of any opinion that you have expressed as an expert during this examination?

(Objected to on the ground that — is incompetent to attempt to prove certainties by comparison.)

A. There are two half pieces composing the stay, but whether they are just alike or not I have not examined, as that, it seemed to me, was a matter wholly outside of the question under consideration, and, in regard to these two half pieces being "previously made," it was but natural for the inventor to so specify it or describe it,

507 and, though I have intimated in my two previous answers that the language of the specification is somewhat ambiguous, I therefore call in aid the drawing annexed to the specification, and by the help of the two together I can come to no other conclusion than such as I have already given. From the construction shown in the drawing and the language expressed in the specification I take it that the elastic gore is sewed to the two half pieces of the stay, which is previously made and of the usual material, and, in my opinion, the inventor does not convey the meaning that the ends of the springs and the material covering them are both sewed into the two halves of the stay, and so that the sewing which fastens the gore to the stay at the same time fastens the springs. If that was true the execution of the drawing would be different and would have to show that the edges of the two halves united to the elastic gore would overlap the springs, but it is not so shown; and, furthermore, it would make a very clumsily executed piece of work, and, taking all these things into consideration, I think that my last two answers are correct. I do not mean to say that I am as positive of this opinion as I have been of some others expressed, but, as before stated, because the language of the specification is somewhat ambiguous I have to rely upon both drawing and specification in order to get a clear idea of the subject under investigation.

X Q. 24. Supposing my construction of the language of the specification is correct, and that the springs are laid between the covering material, which is puckered on the springs, and the edge of the covering material and ends of the springs are laid between the two thicknesses of cloth which form the two side pieces of the stays previously made, would not the drawing cease to show the pucker of the

covering material of the springs at the edge of the cloth forming the sides or two halves of the corset, and present just such drawings as shown in the drawings of this British patent, if correctly made?

508 A. If the edges of the two side pieces overlapped the springs of the gore, the longitudinal puckering would be covered up and cease to show; but there would be ridges shown, parallel to and on each side of the springs, if the construction was made as supposed and correctly shown on the drawing.

X Q. 25. Do you think any draftsman would represent the continuation of those ridges behind the plain cloth edge of the halves, and would it be proper in a drawing to represent them in any other way than, possibly, by dotted lines.

A. In the first place, your question is a little ambiguous. I suppose you mean to say under or between when you say behind the plain cloth edge.

X Q. 26. I mean behind. The view shown in the drawing is a front view of the stay. The edge of the elastic section, so far as the front view is concerned, is behind the plain edges of the cloth which form the two halves of the stay; therefore the pucker of the covering material, as well as the ridges formed by the springs, would be covered from sight in this view of the stay. Now, would it be proper for a draftsman to show in his drawing of that view of the corset the covered-up portion of the elastic section?

A. It certainly would; for if the springs extended under the overlapping edge they should be shown dotted, and the ridges and depressions formed by and between the springs should show shading to clearly indicate the depression, but if the springs do not extend under the overlaping margin, then it can only be shown plain, as in the drawing of the Britsh patent of 1815 and the other exhibit already referred to.

X Q. 27. You mean, do you, that if you were to make a drawing of a bag of meal the draftsman would show the cat in the meal if he knew the cat was there, although entirely covered from view?

509 (Objected to on the ground that counsel has no right thus to catechise the witness, and that the question, being incapable of a categorical answer, should by the counsel be somewhat ameliorated.)

Counsel is evidently afraid that his witness will be bagged (by counsel for complainants).

Counsel for defendant fears not the bag, but the imperceptible cat counsel has conceived in his imagination.

A. I mean to say by my previous answers, and do now, that all the parts of the structure specified and claimed in a patent should be so intelligently drawn that the meaning of the inventor could not be mistaken as to his intention, and that I should certainly so represent the drawing as I have stated, and that I do not regard the drawing shown in British patent of 1815 as representing or intending to represent such construction as the counsel for plaintiff puts upon it.

X Q. 28. Then you would represent the elastic section of the draw-

ing the same where covered from view as where exposed to view, would you?

A. No, sir. I have already stated how I would represent it, where it was covered from view.

X Q. 29. If covered by a plain, smooth cloth, you wouldn't make any shading on that cloth, would you?

A. No, sir.

X Q. 30. If my construction, in reference to the construction of the elastic section in this old British patent of 1815, is correct, and there is no description in said patent of any plain margin, and no description of the fastening of the ends of the springs, excepting in the language above quoted, where it states that the ends of the springs with their covering material are sewed or otherwise fastened to the two halves of the stays previously made, is it your opinion that all of the elements of either of the claims of complainants' patent 238,101 are found in the said old British patent of 1815, so that said
510 British patent, in your judgment, meets or anticipates either of said claims of said patent No. 238,181; and, if so, which of said claims?

A. If your supposed construction is correct, then I do not see that any of the claims are fully anticipated in the construction shown and described in British patent of 1815.

X Q. 31. If you were to place the British patent of 1866 in the hands of the manufacturer of rubber fabrics, without any instructions further than to make something in accordance with the description of said patent, what would you expect to receive from said manufacturer?

A. You mean, I suppose, British patent No. 3451, of 1866. If I were to place into the hands of a rubber manufacturer the article there represented, to be made as there specified, I would expect to get what I had ordered.

X Q. 32. If you simply gave him the patent and told him to make just what was described in that patent for you, what would you expect to get? Would it not be a rubber elastic gusset?

A. It would be a gusset formed of two overlaying pieces of cloth stitched together so as to form tubes or channels across the same, such tubes not extending to the edge of the material, and said tubes puckered, and through them a continuous rubber spring, filling all the tubes, and said springs fastened at its ends in the first and last tubes at the two extreme ends of the section or gore.

X Q. 33. If there is any invention in making garments cut in certain patterns, combining strengthening pieces in certain parts of the garment, and giving the desired elasticity to certain other parts and having the elastic properties given to certain parts of that garment free from certain objectionable qualities contained in rubber, you would not expect, would you, to have all such inventions
511 in the elastic rubber section which one would make from the British patent specification (which has no drawing) of 1866?

A. I do not know how to answer the first half of your question. I wish you would please make it more definite.

X Q. 34. I think it is plain. I will repeat it, however. Taking

for granted that there is patentable invention in making garments of certain specified patterns with strengthening pieces in certain parts and making the proper elasticity at specially desired places, with less elasticity at other parts, and making the elastic portions of certain specified material to avoid the objectionable properties that rubber has when used in that specific place and for that specific purpose—now, taking for granted that garments of this description are patentable (and all patents for garments are for this kind of invention), would you find any of said inventions in the rubber elastic gore which one would make for you by following the specification of the British patent of 1866?

(Question objected to as being utterly incomprehensible. The expert may understand it, but counsel for defendant says he certainly does not; and also that the hypothesis assumed by counsel is not warranted by any facts in the case.)

A. Broadly speaking, all construction of garments whatsoever are embraced in the first or major part of this question. As to the second part, under certain circumstances I would say yes; under other and opposite circumstances I would say no. Substituting the elastic gore shown in British patent of 1866, No. 3451, in place of the gore shown in British patent of 1815, would, under the circumstances as I now understand them and as I now understand this question, contain no element of invention, even if the continuous rubber spring was an improvement upon the construction shown in
the old British patent of 1815, because in so doing nothing
512 more would be accomplished than substituting one thing for another which would answer the same purpose.

(Last part of answer objected to as not responsive, inasmuch as the witness was not asked anything about the patent of 1815 and did not call for an argument, and he again requests the witness to confine himself to answering the question asked.)

Further taking of testimony here adjourned until 10 o'clock a. m., Tuesday, January 30, 1883, at same place.

TUESDAY, *January* 30, 1883.

Met pursuant to adjournment.

Present: As before.

Redirect examination:

R. D. Q. 1. When you say in your answer to X Q. 5 that you experted this case on that proposition, do you mean by that that that was the only proposition upon which you experted the case or do you intend your answer merely to apply to that part of your experting touching that particular proposition?

A. I meant in my answer to touch only on that particular proposition stated in question 5.

R. D. Q. 2. You say in answer to X Q. 11 that the first claim of patent 238,100 is not met so far as the construction of the elastic in the special manner stated by the old British patent of 1815 —, and were proceeding to state that in your opinion that elastic section

claimed in the first claim is met by British patent when you were stopped by the counsel in your answer. Please finish your remarks in regard to that now.

(Question objected to as calling for "remarks" from the witness and not for facts responsive to specific questions asked.)

513 A. What I meant to say further was that in patent No. 238,100 the elastic section or gore was made of one continuous spring of wire, while the elastic section shown in British patent of 1815 had single-coiled wire springs in each tube, and, therefore, so far as relates to single or continuous springs, the British patent referred to did not answer the first claim of patent 238,100, granted to Florsheim.

R. D. Q. 3. Did you say that the English patent of 1815 had wire springs?

A. Yes, sir; coiled-wire springs—one in each tube of the section.

R. D. Q. 4. What portion of the claimed invention, if any, is met, in your opinion, by the British patent of 1866?

(Question objected to because it is not properly redirect examination and is leading.)

A. The British patent of 1866 answers, substantially, every element of the first claim of patent 238,100. All the difference between the two inventions is that in the British patent of 1866 a rubber cord answers the purpose of a spring, while in claim 1 spiral metal springs are substituted for the rubber springs.

R. D. Q. 5. You have referred in your cross-examination to different inventions or improvements which, though variant in their peculiar construction, yet have the same functions and produce the same results. In what, in your opinion, does the novelty of such improvements or inventions consist, if any? And, if it now occurs to you, give some examples in which such novelty as an invention or improvement does or does not consist.

A. To illustrate, what I meant was this: In the case under consideration, in speaking of elastic gore, the India-rubber springs in the British patent and the coiled-wire springs shown in patent 238,100 perform the same functions, because they act in the same manner and produce the same result.

514 Recross-examination:

R. X Q. 1. If rubber springs act in the same manner and produce the same result when applied in corsets, where it is subjected to warmth and moisture, why do not your clients use rubber springs, which cost much less than coiled wire, and why do they say in their circulars that the coiled-wire springs for this purpose are "unlike rubber or other materials, will not heat the person or decay with age," and that "the springs are so constructed as to outwear the corset and at the same time retaining its elasticity," if you know?

(Objected to on the ground that the parties to this case, the defendants, are not the clients of the witness, and that the circular the

counsel has introduced is one purporting to be issued by the Schilling Manufacturing Company; that there is no such circular as that produced by counsel in evidence in this case.)

A. I do not know what the object is of the parties represented in this circular just read, and if they are my clients or not. The statements they make in the circular are doubtless true, and if they use coiled-wire springs in preference to rubber it is simply substituting one mechanical equivalent for another. The fact that rubber rots or wears out much sooner cuts no figure in this case, because under the state of the art as now known both rubber and coiled-wire springs are old.

R. X Q. 2. If the statements made in this circular are true, and the coiled-wire springs are unlike rubber—will not heat the person or decay with age, while rubber will; that rubber loses its elasticity in a short time, while coiled-wire springs outwear the corset, retaining their elasticity; and, in fact, rubber is found to be almost worthless for that purpose, while coiled-wire springs have great durability and value—is one a mechanical equivalent for the other for that purpose, in your opinion as an expert? Will you please answer this question, yes or no?

515 (Question objected to on the ground that it assumes a state of facts not proven—one, for instance, that rubber is almost worthless, and others—and that it is a question which the witness cannot answer yes or no without assuming the truth of the statements, which it is not his province to do.)

A. Yes. I mean by this that one is a mechanical equivalent of the other.

R. X Q. 3. You say that the British patent of 1866 has substantially every element of the first claim of the patent 238,100, the difference between the said first claim and the British patent consisting of the difference in the spring. Is that the only difference you find between the elements of this claim and the said British patent of 1866?

A. I have stated before that in the British patent the springs were not arranged in groups, while in the patent 238,100 they were arranged in groups. That is all the difference of construction aside from substituting coiled wire for rubber springs.

R. X Q. 4. Does not the first claim of this patent 238,100 say, "In a corset, and substantially as specified and shown?" By this language, does not the corset, substantially as specified and shown, form an element of the claim, in your judgment?

A. No, sir; because it might say in the waist of a dress or anything else, and then go on and name the elements of the claim, and it would be as good in one case as in the other. Therefore the words "in a corset," preceding the other part of the claim as here given, are of no importance.

WM. ZIMMERMAN.

Subscribed and sworn to before me this 30th day of January, A. D. 1883.

JNO. C. MACGREGOR,
Notary Public.

516 Met pursuant to adjournment.
Present: As before.

GUSTAV SCHILLING, being recalled, testified as follows:

Q. 1. Mr. Schilling, you spoke in your former examination about having received a postal card from Brother Florsheim, and which you then thought you could not find. Have you since that time searched for the card, and have you found it?

A. Yes, sir.

Q. 2. Look at the card now presented to you and state whether that is it.

A. That's the card what I got in my hand here.

Q. 3. Read it, Mr. Schilling.

(Objected to unless the card be offered in evidence.)

A. Chicago, June 16, 1880. Wollen sie, etc. It is in German.

Q. 4. Well, translate it.

A. Will you please, so soon as possible, to call in my place. I got some important to tell you. Respectfully, S. Florsheim.

Q. 5. What's the date of that?

A. June 16, 1880.

Q. 6. Did you go to see Mr. Florsheim on receiving that card; and, if so, where did you go to find him?

A. I guess I go in the same day to him—that afternoon; to his store, Wabash avenue.

Q. 7. Did you see him?

A. Yes, sir.

Q. 8. What did he want with you?

A. He says there is a Yankee that want to buy our patents. I ask him how much he think he pay. He says, Not much; and then he ask me if I can come in next day, four o'clock afternoon. I come in, and that time Mr. Ball come in. Mr. Florsheim made me acquainted with him, and speak about the patents. Mr. Ball says, Let's see your papers. Mr. Florsheim showed him first
517 the glove patent—that was all right; gaiter patent—that was all right; then the overall patent—that was all right, too; then comes the corset. Corsets good for nothings; too much harness on. I don't care about this patent; and then Mr. Ball says, Now, I try it anyhow. How much do you want for it? And Mr. Florsheim, he says, Ask Schilling; he give you the price; and I says, We want $5,000. Mr. Ball says, I give you—'twas three or five hundred dollars; I don't know exactly; and I say, Mr. Ball, better you go invent patents yourself.

Q. 9. Did Mr. Florsheim say anything to you about your assigning your patent to him for the purpose of going into partnership in the patent; and, if so, what did he say?

A. I come in once in the store; was about in the month of August, and he ask me what I need in the week for my family. I say fifteen or twenty dollars; then he says, Then I take that gaiter business in my hand and made a contract with you for one year, and give you the week fifteen dollars; but then you must assign me your other half patent on these gaiter springs.

Q. —. Did you agree to do it, or did you refuse to do it?

A. That makes me so mad at the same time; was some mans in that store, and I wouldn't answer him that what he must have, and I says, You speak other time about that, and so I left the store. The next week I get a postal card from Mr. Florsheim.

Q. 11. I don't care what took place next week.

A. He want to see me.

Q. 12. You state in your previous examination that you sent a model of the overalls spoken of by you to the Patent Office in Washington. What kind of springs were contained in those overalls—in that model; were they single or continuous?

518 (Question objected to because witness has previously stated.)

A. Was continuings.

Q 13. Were the springs in groups?

A. Was not connected in groups; was continuing in the tubes.

Q. 14. Well, just answer my question. Why were they not made continuous, the groups?

A. That time I couldn't make any longer springs than about twelve or fifteen inches long. My machine was not constructed to make longer springs; first time I made continuing springs.

Q. 15. What machine did you made those springs on; what kind of a machine?

A. Sewing machine.

Q. 16. What kind of margin, if any, was shown in that model of the overalls that you sent to Washington?

A. I have over three-quarters of an inch from the puckered tubes.

Counsel for defendant here offers in evidence the postal card produced above and the same is marked "Defendant's Exhibit No. 12."

Cross-examination by L. L. COBURN, Esq.:

X Q. 1. Is this the only postal card which you received from Mr. Florsheim that you could find in your search?

A. I got some more.

X Q. 2. Why didn't you bring them?

A. You want to see 'em?

X Q. 3. Yes.

A. I fetch 'em in to-morrow; ain't got 'em at present.

X Q. 4. Why didn't you bring them with you now?

A. I thought one was enough.

X Q. 5. Have you not previously sworn that the springs
519 in the overall model which you made were single springs, made the same as the gores used in the gaiter patent?

A. I cannot remember that.

X Q. 6. Don't you remember that you swore that the springs which you made for the overall model were single springs, there being one spring in each tube, with the springs running to the edge of the elastic piece or gore?

A. When I swore that, then I made a mistake.

X Q. 7. Now, in point of fact, were not some of the elastic gores which were put into the overalls which were used for a model when the application was made for your and Florsheim's overall patent made with single springs extending to the edge of the gore, substantially the same as the gores which you made for your gaiter patent model?

A. No, sir; that was continuing springs. I remember that on a spindle what I find after that, when I coiled heavier springs on that and then other, remember, is that we went before in the public library, in which Mr. Florsheim read me that English patent. Since that day I have made nothing else, only continuing springs.

X Q. 8. You will swear positively, will you, that all the elastic gores used in the overall model sent to Washington with your and Florsheim's application for a patent for overalls had continuing springs and margins?

A. So much I remember; yes.

X Q. 9. Are you positive that the hip gores were not single springs without margins?

A. 'Twas one made just like the other one.

X Q. 10. (Question repeated.) I did not ask you if they were both alike.

A. Hip gores was continuing springs, with margin, too.

X Q. 11. Mr. Florsheim furnished you the overalls, didn't he?

520 A. Yes, sir.

X Q. 12. Was there not an elastic gore sewed into the back of those overalls when he gave them to you?

A. No, sir.

X Q. 13. And did you not make and insert the hip gores in the overalls?

A. I made the hip gores, too.

X Q. 14. And you made them all alike, did you, the back gore and the hip gores?

A. So much I remember; yes.

X Q. 15. Do you know whether you did or not?

A. Generally, I made one piece like the other one; sometimes I had a shorter piece of spring, and it wasn't long enough; then I have to set other pieces in, too.

X Q. 16. I don't ask you what you generally did. Do you now know that you made all the elastic gores for the overall model alike?

A. I can't answer other on this question than what I answered before, and so soon that piece of spring wasn't long enough I made the springs continuing so long as the piece was, and, if it wasn't long enough, set in other pieces and fasten these two ends together.

X Q. 17. You know, do you, that all those gored in the overall

model had continuous springs in them, with margins, and that you were mistaken when you previously swore that they had single springs without margins?

(Objected to.)

A. Yes, sir; I know it now.

X Q. 18. How did you find out that you were mistaken about it?

A. I find it out what I say before, that I find this thick spindle where I made those springs on for these overalls, and then that time that I remember the time that Florsheim take me in the public library.

GUSTAV SCHILLING.

521 Subscribed and sworn to before me this 30th day of January, A. D. 1883.

JNO. C. MACGREGOR,
Notary Public.

In the United States Circuit Court, Northern District of Illinois.

SIMON FLORSHEIM, THOMAS H. BALL,
vs.
GUSTAV SCHILLING. } In Equity.

Coburn & Thatcher, Esqs., complainants' solicitors.

GENTLEMEN: Please to take notice that on Saturday, April 7, at 11 o'clock in the forenoon, we will proceed to take the testimony of Gustav Schilling and others, in reply, in this cause, on behalf of the defendant therein, before John C. MacGregor, notary public, or other competent officer, at the office of William Zimmerman, 42 Borden block, in the city of Chicago, Illinois.

Taking of such testimony will continue from day to day until completed. You are invited to be present and cross-examine, if you see fit.

Chicago, Illinois, April 5, 1883.

Yours, etc., FLOWER, REMY & GREGORY,
Solicitors for Defendant.

Service of the above notice by copy acknowledged this 5th day of April, 1883.

STATE OF ILLINOIS, } ss:
County of Cook, }

J. G. Rogers, Jr., being duly sworn, deposes and says that he served the within notice by leaving a copy of the same with John M. Thatcher, of the firm of Coburn & Thatcher, this 6th day of April, 1883.

(Signed) J. G. ROGERS, JR.

522 Subscribed and sworn to before me this 6th day of April, A. D. 1883.

[SEAL.] FRANK L. BARIO,
Notary Public.

United States Circuit Court, Northern District of Illinois.

SIMON FLORSHEIM and THOMAS H. BALL
vs.
GUSTAV SCHILLING. } In Equity.

Pursuant to notice hereto attached met at the office of Wm. Zimmerman, room 42 Borden block, Chicago, Illinois, this 7th day of April, 1883, to take further testimony on behalf of defendant in the above-entitled cause.

Present: L. L. Coburn, Esq., of Coburn & Thacher, on the part of complainants, and Hon. John C. Chumasero, of Flower, Remy & Gregory, on the part of defendant.

Whereupon the following proceedings were had:

GUSTAV SCHILLING, being recalled, testified as follows:

Q. 1. In the testimony in the interference case in which Mr. August Florsheim was sworn and testified as a witness on the part of the complainants and in question 33 of his examination he was asked as follows: "Did Mr. Gustav Schilling, that you know of, see a pair of shoes made with a goring, which Mr. Simon Florsheim brought you, which he said were made with continuous springs and non-elastic margins; and, if he did, did he say anything about that kind of goring for shoes being Mr. Florsheim's invention; if so, what did he say about it?" To which the witness answered, "Yes, sir; I showed him a pair of shoes with a continuous wire spring and non-elastic gorings in, and he remarked that it was a
523 good idea of your brother Simon's; he had got a good head on him, anyway." I ask you the question, Did you, on that occasion or any other, state to Mr. August Florsheim that it was a good idea of his brother Simon's, or that he had got a good head on him, anyway, or any words or language of a like character?

A. Mr. August Florsheim?

(Counsel requested the question re-read. It was re-read, and witness answered, "No, sir.")

Q. 2. Mr. Wm. H. Lotz, in his testimony in the interference case, in answer to direct question 19, stated: "He said it was a good idea of Mr. Florsheim's; that he didn't know of any way to make it different; that it was a good idea of his." Did you so state to Mr. Lotz, as he testifies?

A. No, sir.

Q. 3. Did you ever state to Mr. August Florsheim or Mr. Lotz that Simon Florsheim was the inventor of either the margin or continuous springs, either in words or substance?

(This question and the question preceding objected to because they are leading.)

A. No, sir.

Q. 3. Mr. Schilling, is it possible, in making elastic shoe goring with plain margins and continuous springs, to manufacture such goring without the help of a machine to do the crimping?

A. No, sir.

Q. 5. Why would it not be possible? Give the reasons.

A. Gaiter gorings is, outside, leather, and, inside, cloth; and the fabric must be twice so much wider that, after that, when springs is in, it stretch enough. Nobody can make it by hand, so that he get the right shape that it can be used.

524 Q. 6. Could it be made by hand for single springs?

A. That can be made, but it is very hard work; but nobody understand it, and they can't do it at all.

Cross-examination:

X Q. 1. Did Mr. August Florsheim show you a pair of shoes having elastic goring with continuous springs and non-elastic margins?

A. Yes, sir; he showed me shoes, but with those springs what I made myself; and it was in the summer time, 1879; about July or August, 1879.

X Q. 2. That was the first pair he had made, was it, with elastic gores having coiled-wire springs?

A. I don't know if it was the first pair; I made so many samples that time.

X Q. 3. The first pair that he had made with elastic coiled-wire spring gores made by you, that you know of, was this pair that he showed you in the summer of '79, was it?

A. He showed me only one pair, and we talk about the size of the gaiters, and he ask me if we can make it in size 8 or 7, smaller than size 9 or 10. I say yes, so soon we have clamps for it.

X Q. 4. What was the size of the pair that he showed you?

A. I couldn't remember that.

X Q. 5. Didn't he show you another pair that he had made which were different from the first pair?

A. Yes; some after that time. Sometimes he says, Make me springs for No. 8 or No. 7. I made the springs and put them in.

X Q. 6. Wasn't the second pair of shoes which were shown you at his store, made with coiled-wire elastic gores, made differently from the elastic gores in the first pair which had elastic gores made by you like those in your patent for elastic gored shoes or gaiters?

525 A. No, sir; I made all those springs—one just like another one—with continuous springs and margin on.

X Q. 7. You now swear, do you, that you do not know that Simon Florsheim or his brother, August Florsheim, had a pair of shoes or gaiters made with coiled-wired elastic gores in them made by you which had single springs extending clear across the gore, with the ends of each spring sewed to the leather of the shoe?

A. No, sir; I never made such a pair of springs for Florsheim.

X Q. 8. Did not either of them show you a pair of shoes, with elastic gores of that kind in them?

A. No, sir.

X Q. 9. Did you not testify in your former interference that they did?

(Objected to by counsel for defendant.)

A. No, sir.

GUSTAV SCHILLING.

Subscribed and sworn to before me this 7th day of April, 1883.

JNO. C. MACGREGOR,
Notary Public.

Notice to Take Deposition de Bene Esse.

Circuit Court of the United States, Northern District of Illoinis, Cook County.

SIMON FLORSHEIM and THOMAS H. BALL, Complainants,
vs.
GUSTAV SCHILLING, Def't. } In Equity.

You will please take notice that on Tuesday, the 13th day of February, 1883, at 10 o'clock a. m., and from day to day until completed, at the office of John E. Beall, Esq., No. 1420 New York avenue, in the city of Washington, in the District of Columbia, before John E. Beall, a notary public, or by and before some other
526 officer authorized by law to take depositions in such cases, the defendant will take the deposition *de bene esse* of R. D. O. Smith, of said city of Washington, to be read in evidence on the trial of the above-entitled cause on the part of said defendant.

The reason for so taking said deposition is that said witness resides more than 100 miles from the place of trial and by virtue of the stipulation in the cause.

Yours, FLOWER, REMY & GREGORY,
Defendant's Solicitors.

Chicago, February 1, 1883.

To Coburn & Thacher, complainants' solicitors.

Service accepted by copy Feb. 1, 1883.

COBURN & THACHER,
Complainants' Solicitors.

Circuit Court of the United States, Northern District of Illinois.

SIMON FLORSHEIM and THOMAS H. BALL, Complainants,
vs.
GUSTAV SCHILLING, Def't.

The deposition of R. D. O. Smith, of the city and county of Washington and District of Columbia, a witness of lawful age, produced, sworn, and examined on his corporal oath on the 13th day of February, A. D. 1883, at the office of John E. Beall, notary public, rooms 4 and 5, 1420 New York avenue, Washington city, in the county of Washington and District of Columbia aforesaid, by me, a notary pub-

lic duly agreed upon by a notice *de bene esse* given in the above-entitled cause and herewith annexed providing for the examination of the said R. D. O. Smith, a witness in a certain suit and matter
527 in controversy now pending and undetermined in the said circuit court of the United States for the northern district of Illinois, wherein Simon Florsheim and Thomas H. Ball are complainants and Gustav Schilling is defendant, in behalf of the said defendant, as well upon the interrogatories of counsel for complainants as upon the interrogatories of the counsel for defendant, and upon none others.

The said R. D. O. SMITH, being first duly sworn by me as a witness in the said cause, previous to the commencement of his examination, to testify the truth as well on the part of the plaintiff as the defendant in relation to the matters in controversy between the plaintiff and defendant, as far as he should be interrogated, testified and deposed as follows:

Mr. Thomas H. Ball appeared for the plaintiffs at said examination and Mr. C. W. Matthews appeared for the defendant and interrogated the witness, who gave the following testimony, viz:

Deposition of R. D. O. Smith.

SIMON FLORSHEIM and THOMAS H. BALL
vs.
GUSTAV SCHILLING. } In Chancery.

Int. 1. Please state your name, residence, business, and the length of your experience in that business.

A. My name is Robert D. O. Smith; I reside in the city of Washington; am solicitor of patents, and have been so continuously for more than nineteen years.

Int. 2. Are you familiar with patent business as conducted in the United States Patent Office?

A. My nineteen years' experience as solicitor of patents has made me familiar with the practice of the Patent Office and with the investigation and comparison of inventions. I have also tes-
528 tified frequently as expert in mechanical causes before the United States court.

Int. 3. Have you ever made an examination of the models of patents in the Patent Office numbered 222,082 and 224,559?

A. I examined those models yesterday.

Int. 4. Which of those, Mr. Smith, is the corset model?

A. No. 222,082.

Int. 5. Will you please say how the springs are arranged in that model?

A. There is a section of the back extending the whole length of the corset and from two to three inches wide—I did not measure it—which is provided with springs running across and arranged in groups. These springs are spiral, wound closely over a small mandrel, and are made of brass wire; the covering material is of cloth, and is shirred or puckered so as to permit the springs to elongate

and contract again, and thus render the back of the corset elastic. The number of groups are (13) thirteen and the number of springs are three (3) each in ten (10) of those groups, two (2) springs in one (1) group, four (4) springs in one (1) group, five (5) springs in one (1) group. Some of these springs are continuous to the extent that one spring passes across and back; others of them are discontinuous—that is, they pass simply once across; the covering material for these springs extends beyond the end of the springs, so as to leave a margin by which the covering material may be attached to the side pieces of the corset by stitches, which do not cross the springs. Over each hip of the corset there is an elastic gusset rendered elastic by springs similar to those in the back, with the exception that none of them are continuous. There are also elastic shoulder-straps at-
529 tached to the corset, provided with springs running lengthwise, each spring terminating at the ends of the shoulder-strap.

Int. 6. Are the groups of the springs connected in this model?

A. They are not.

Int. 7. Either in the back, hip, gusset, or shoulder-strap?

A. No. I could not discover any connection.

Int. 8. Of the springs in the back, how many were continuous?

A. That I am unable to say positively, because I did not take the corset entirely apart. I opened it only far enough to discover that some of the springs were continuous and some were not.

Int. 9. Of what is No. 224,559 the model?

A. That is a model of a workman's overall.

Int. 10. How are the springs in that model arranged?

A. There is in the back an elastic gusset provided with wire springs laid across the gusset in groups; the springs are similar to those described in the corset; the covering material is of leather; the springs are continuous in the upper group to the extent that each spring passes three times across the gusset; the upper group consists of three (3) of these springs; there are two other groups, composed of springs crossing twice each; I suppose them to be continuous in the same way, but I did not open the seam so as to know positively; these groups are not connected; over each hip there is an elastic band attached at each end to the waistband; each of these bands is provided with four (4) springs, each of which terminates at the ends of the elastic band; these springs are somewhat larger than the springs in the gusset; the covering material is also of leather, and they have no margin of the covering material extending beyond the ends of the springs.

530 Int. 11. The springs in the elastic hip band are not continuous, are they?

A. No.

Int. 12. Are they continuous in the back gusset of the overall?

A. They are continuous to the extent that one (1) spring passes back and forth three (3) times across the gusset. The upper group in the gusset has three (3) of such springs together crossing nine (9) times; the other two (2) groups have springs crossing twice each;

whether they are continuous in the same way or not I do not know positively, not having opened the seam.

Cross-examination by T. H. BALL, Esq.:

Cross-int. 1. You say that in the back of the corset you find, to a certain extent, continuous springs, and beyond the ends of these springs a margin for sewing this gusset into the corset without interfering with the ends of the springs, and in the shoulder-strap you find single springs extending the whole length of the shoulder-strap; do you find the ends of these springs fastened to the end of the covering material, leaving a margin beyond the ends of the springs, or not?

A. I think that there was no margin.

Cross-int. 2. What should you think was the comparative length of each individual spring in this shoulder-strap, as compared with the width of the gusset in the back?

A. I did not measure the length of the shoulder-strap, but I should say that it must be four (4) or five (5) times the width of the gusset.

Cross-int. 3. Do you find the size of the coil springs uniform in the various elastic pieces of this corset?

A. I did not make any special comparison, but did not notice any difference.

531 Cross-int. 4. In this gusset in the back of the overall do you find a margin beyond the ends of these springs for sewing it into the garment without interfering with the ends of the springs?

A. Yes; there is a margin similar to that in the corset extending beyond the springs.

Cross-int. 5. What should you judge the comparative length of this larger coil that you find in the side straps of the overall, as compared with the width of the back gusset?

A. I think the length of the side strap is from two (2) to (3) three times the width of the gusset; that is my impression; I did not measure it.

Redirect examination by C. M. MATTHEWS, Esq.:

Int. 1. Did you ever make an examination prior to the one of which you now testify; if so, about when?

A. I did on one occasion, at the request of Mr. P. C. Dyrenforth, of Chicago, look at these models. I sent him a sketch of the arrangement of the springs. I think that was in April, 1882.

Int. 2. Did you make as full examination on that occasion as you did on this one?

A. I did not, because at that time I supposed he wished to know only if the groups of springs were connected by continuous wire.

(By consent of respective counsel a drawing of the gussets or sections in question, to be made by the witness, is hereby attached and marked Exhibit "A," and is to be considered a part of this deposi-

tion, the same being identified by the signatures of witness and the officer taking his deposition.)

R. D. O. SMITH.

Here follows certificate of notary.

(Here follows diagram marked page 532.)

533 I, John E. Beall, a notary public, of the city and county of Washington and District of Columbia, an officer agreed upon to take the deposition of the said R. D. O. Smith, a witness, whose name is subscribed to the foregoing deposition, do hereby certify that, previous to the commencement of the examination of the said R. D. O. Smith as a witness in the suit between the said Simon Florsheim and Thomas H. Ball, complainants, and the said Gustav Schilling, defendant, he was duly sworn by me as such officer to testify the truth in relation to the matters in controversy between the said Simon Florsheim and Thomas H. Ball, complainants, and Gustav Schilling, defendant, as far as he should be interrogated concerning the same; that the said deposition was taken at my office, rooms 4 and 5, 1420 New York avenue, in the city and county of Washington and District of Columbia, on the 13th day of February, A. D. 1883, and that after said deposition was taken by me as aforesaid the interrogatories and answers thereto as written down were read over to the said witness, and that thereupon the same was signed and sworn to by the said deponent before me, the oath being administered by me as such notary public, at the place and on the day and year last aforesaid.

In witness whereof I have hereunto set my hand and official seal, at the city of Washington, in the county of Washington and District of Columbia, this thirteenth (13th) day of February, in the year of our Lord one thousand eight hundred and eighty-three.

[SEAL.] JOHN E. BEALL,
Notary Public.

534 *Depositions.*

United States Circuit Court, Northern District of Illinois.

SIMON FLORSHEIM
vs.
GUSTAV SCHILLING. } In Equity.

Commission and depositions of Joseph Beckel and William Rothschild.

SETH K. JOHNSON, ESQ.,
Of Counsel for Defendant.
CHAS. BULKLEY HUBBELL,
Commissioner, No. 69 Wall Street, New York.

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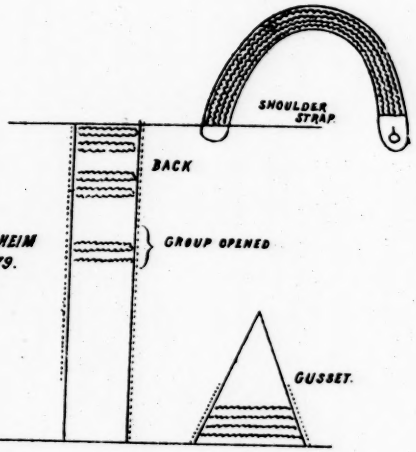

SCHILLING & FLORSHEIM
25 Nov. 1879.
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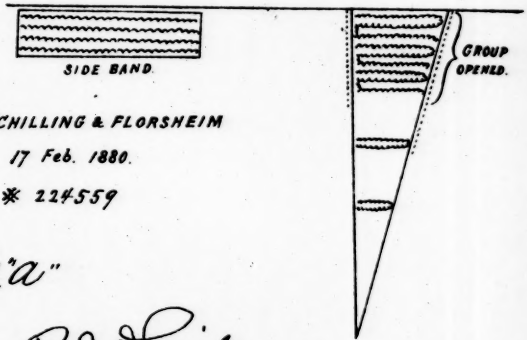
Corset

No. 217.
Florsheim et al
vs.
Schilling
} p. 532.



SCHILLING & FLORSHEIM
17 Feb. 1880.
* 224559

Exhibit "A"

A. D. C. Smith
Witness

John E. Beall
Notary Public

(Seal)

(Endorsed)
Read & filed Feb 16. 1883
Opened for Mr Florsheim
Feb 16. 1883. W. H. Bradley. Clk.

United States Circuit Court, Northern District of Illinois.

SIMON FLORSHEIM and THOMAS H. BALL, Complainants, *vs.* GUSTAV SCHILLING, Defendant. } In Equity.

Messrs. Coburn & Thacher.

GENTLEMEN: Please take notice that on Tuesday, January 16, 1883, at 10 o'clock in the forenoon, we shall take testimony on behalf of the defendant in the above-entitled cause before Charles Bulkley Hubbell, Esq., a notary public in and for the city and county of New York, State of New York, at his office, No. 69 Wall street, in said city of New York.

The taking of testimony will continue from day to day until completed. You are invited to be present and cross-examine if you see fit.

FLOWER, REMY & GREGORY,
Solicitors for Defendant.

535 STATE OF ILLINOIS, *County of Cook,* } *ss:*

Daniel Donovan, of Chicago, in said county, being duly sworn, says that on the 8th day of January, A. D. 1883, at 10 o'clock in the forenoon, he served the foregoing notice on Messrs. Coburn & Thacher, complainants' solicitors above named, by leaving a true copy thereof with H. L. Talcott, in the office of said Coburn & Thacher, said office being open at the time of such service, said Coburn and Thacher both being absent therefrom, and said Talcott having charge thereof.

DANIEL DONOVAN.

Sworn to and subscribed before me this 9th day of January, 1883.
JAS. B. GASCOIGNE,
Notary Public.

In the Circuit Court of the United States for the Northern District of Illinois.

SIMON FLORSHEIM and THOMAS H. BALL, Complainants, *vs.* GUSTAV SCHILLING, Defendant. } In Equity.

STATE OF NEW YORK, *City and County of New York,* } *ss:*

WILLIAM ROTHSCHILD, a witness called on behalf of the defendant herein, and residing at the city of New York, more than one hundred miles from the place where this cause is to be tried, being duly cautioned and sworn to tell the whole truth, and being carefully examined, deposes and says as follows: My name is William Rothschild; I am a merchant; age, 52 years; residence, 29 West Fifty-

eighth street, New York city. I don't know either of the
536 parties to this suit or any of them. I have been for fifteen years importing and manufacturing corsets, and am now engaged in the cotton goods commission business. When engaged in the corset business I conducted, I believe, the largest and most extensive business done in this country by any one concern.

(Counsel for defendant offers samples of wire-spring woven cloth in evidence, tenders the same to witness, which is received by him, after being marked "Exhibit A" and made a part of this deposition. Witness examines same and says:) We have imported, as long back as 1864, corsets that had the same kind of cloth in their make-up. We also imported cloth exactly like this for corset manufacturers in the country for years after 1864. The manufacturers, instead of using steels in corsets to be used by ladies during pregnancy, used cloth-wire spring cloth in place of steels, and we imported corsets with this cloth inserted in the corsets for that purpose. We also imported children's waists and corsets where cloth exactly like this that I hold—that is, like "Exhibit A"—was inserted. I bought cloth-woven wire-spring cloth like this through Koch Freres, of Paris, a commission-house. It was manufactured in Paris. This cloth is woven in one piece, with pockets. It is a double-woven piece of cloth with pocket—two pieces of cloth woven together. Yes; it is woven. The cloth formerly imported by me, both in corsets and pieces, was exactly like the cloth of "Exhibit A." Cloth like that in "Exhibit A" is no new invention. It has been imported by me since 1864, and was imported by others before me—by a Mrs. Gaynor—being imported in corsets and in separate strips. I went with Mr. Albert Koch, in Paris, years ago, to the manufacturer of the cloth like that of "Exhibit A," and bought what I wanted.

W. F. ROTHSCHILD.

537 Sworn to and subscribed before me this 16th day of January, A. D. 1883.

[SEAL.] CHAS. BUCKLEY HUBBELL,
Notary Public (128), *City and County of New York.*

In the Circuit Court of the United States for the Northern District of Illinois.

SIMON FLORSHEIM and THOMAS H. BALL, Complainants,
vs.
GUSTAV SCHILLING, Defendant. } In Equity.

STATE OF NEW YORK, }
City and County of New York, } *ss:*

JOSEPH BECKEL, a witness called on behalf of the defendant herein, and residing at the city of New York, more than one hundred miles from the place where this cause is to be tried, being duly cautioned and sworn to tell the whole truth, and being carefully examined, de-

poses and says as follows: My name is Joseph Beckel; residence, 734 Lexington avenue, in this city; 62 years of age. My business is that of an importer and manufacturer of corsets. I do not know any of the parties to this suit. I have been in the corset business sine 1867 here in New York, and also in New Haven. My business has been an extensive one. (Witness is handed "Exhibit A.") The material is familiar. It is used in the manufacture of corsets, being inserted in the body of the corset—that is, on the sides and front of the corsets—for abdominal purposes; that is to give the corset elasticity. The cloth of "Exhibit A" is a double piece, woven together, with pockets to insert the wire springs—I mean a piece woven double, with pockets, in order to insert the wire springs. Ma-
538 terial like "Exhibit A" is of foreign manufacture, and is manufactured in Paris. I have been in the factory in Paris several times during the last ten years and as recently as July, 1882. I saw the manufacturer in Paris, and was told by him that he had been making cloth like this for thirty years. I have seen corsets with material like "Exhibit A" in them for sale in the various cities of Europe for the last fifteen years. I am positive that the material in those corsets was exactly the same as that in "Exhibit A." This cloth is no new invention, and it has been long used, both in this country and in Europe, in the manufacture of corsets.

JOSEPH BECKEL.

Subscribed and sworn to before me this 16th day of January, A. D. 1883.

[SEAL.] CHAS. BULKLEY HUBBELL,
Notary Public (128), *City and County of New York.*

In the Circuit Court of the United States for the Northern District of Illinois.

SIMON FLORSHEIM and THOMAS H. BALL, Complainants,
vs.
GUSTAV SCHILLING, Defendant. } In Equity.

I hereby certify that on the 16th day of January, 1883, before me, Chas. Bulkley Hubbell, a notary public in and for the city and county of New York and State of New York, personally appeared before me, pursuant to the notice hereto annexed, between the hours of 10 a. m. and 4 p. m., William Rothschild and Joseph Beckel as witnesses, and Seth R. Johnson, Esq., appeared as counsel for defendant, and no one appeared as counsel for plaintiffs; and the said witnesses, being by me first duly cautioned and sworn to tes-
539 tify the whole truth, and being carefully examined, deposed and said as appears by the deposition hereto annexed.

And I further certify that the said depositions were then and there reduced to writing by me, and were, after they had been reduced to writing, subscribed by the witnesses, and the same have been re-

tained by me for the purpose of sealing up and directing the same to the clerk of the court, as required by law.

And I further certify that the reason why the said deposition was taken was that the said witnesses reside at the city of New York, more than one hundred miles from the place where this cause is to be tried.

And I further certify that I am not of counsel or attorney to either of the parties, nor am I interested in the event of the cause; and I further certify that the fee for taking said depositions, ten dollars, has been paid to me by the defendant, and the same is just and reasonable.

In testimony whereof I have hereunto set my hand and official seal, at the city of New York, in the county of New York and State of New York, this 16th day of January, 1883.

[SEAL.] CHAS. BULKLEY HUBBELL,
Notary Public (128), *City and County of New York.*

(Endorsed:) Received and filed Jan. 18, 1883. W. H. Bradley, clerk.

540 & 541 United States Circuit Court, Northern District of Illinois.

SIMON FLORSHEIM and THOMAS H. BALL
vs.
GUSTAV SCHILLING. } In Equity.

Pursuant to notice hereto attached, before me, John C. MacGregor, a notary public in and for Cook county, State of Illinois, met at the office of Wm. Zimmerman, room 613 First National Bank building, Chicago, this 16th day of October, A. D. 1883, to take testimony on the part of the defendant in the above-entitled cause.

Present: Hon. J. C. Chumasero and Wm. Zimmerman, Esq., on the part of defendant, and L. L. Coburn, Esq., on the part of complainants; whereupon the following proceedings were had:

WM. H. ROBINSON, a witness introduced on the part of defendant, being first duly sworn to tell the truth, the whole truth, and nothing but the truth in the cause aforesaid, in answer to interrogatories propounded to him by counsel, testified as follows:

Q. 1. What is your name, age, residence, and occupation?

A. My name is William Robinson; will be 61 next December; Chicago, Illinois; occupation at present, fire insurance and examiner for life insurance—mostly fire insurance.

Counsel for complainants objects to the further taking of testimony, because the defendant closed his testimony in rebuttal of our *prima facie* case, and the rebutting testimony of the complainants was closed several weeks ago, and because the defendant's counsel have not indicated that they are to take testimony to prove any new matter of defense to complainants' patent; therefore it
542 is too late to take any accumulative testimony relative to the subject-matter which the complainants have rebutted; otherwise there would be no end in taking the evidence.

Further objection is made because the time is expired within which testimony can be taken, either under the rules of the court or by the written or oral consent of the counsel heretofore given, and counsel appears without waiving the above objections, and if he cross-examines will cross-examine subject to the above objections, and will insist upon like objections to all testimony of this and other witnesses defendant may hereafter examine in this cause.

Counsel for defendant states that he does not propose to contravene or disregard the well-settled rules of evidence for taking testimony; simply proposes to give evidence in answer to the new facts drawn out on the last examination of complainants' witnesses, as he notified complainants' counsel he should do at the close of said examination, and intends to confine himself strictly within the rules.

By Mr. ZIMMERMAN:

Q. 2. How long have you been a practicing physician?

A. Twenty-two years.

Q. 3. Are you engaged in that profession at present?

A. Not particularly so.

Q. What business were you engaged in before you became a physician?

A. I was foreman of a machine and pattern shop; perhaps I should have said a foundry and machine shop.

Q. 5. How long, about, were you engaged in that business?

A. Fifteen years.

Q. 6. During the time you were engaged in this business what experience had you, if any, with mechanical and working drawings?

543 A. I made all the drawings that were used in the machine shop for pattern making and model making and machinery.

Q. 7. Have you examined the drawings, specifications, relating hereto in this controversy between plaintiff and defendant?

A. I have.

Q. 8. Do you fully understand the nature of the inventions?

A. I do.

Q. 9. Have you carefully read the specifications, and understand them?

A. Yes.

Q. 10. I now hand you British patent No. 3894, dated March 14, 1815, and marked "Defendant's Exhibit No. 10," and ask you to tell, in a general way, what it is and how it is constructed.

(Question objected to, as it related to a patent concerning which Mr. Zimmerman testified for the defendant at the taking of defendant's rebutting testimony, which testimony complainants have rebutted; and this is clearly an attempt to have an insurance adjuster adjust Mr. Zimmerman's former testimony, which might lead to readjustments without end, and is clearly incompetent.)

(Counsel for the defendant asks the counsel to define what he means by "readjustment without end," and insists that the question is competent.)

A. It is the drawing of a corset with elastic gore in front and on the sides, and lacing at the back and lacing on the sides also.

Q. 11. You mean, if I understand you correctly, that it has an elastic gore in the front only, or else I do not understand your answer. Please state again in reference to the elastic section.

A. The elastic section is in front.

544 Q. 12. Judging from the drawing alone, I want to ask you whether, in your opinion, there is a plain margin shown on each side of the elastic section or not?

A. I should say there was.

Q. 13. To what are the ends of the springs fastened which are placed between the covering material and this elastic section?

A. I should say they were fastened to the covering that contained the springs.

Q. 14. Is it possible to fasten single springs, which this elastic section is supposed to contain, in any other way than to the covering material, and the springs fastened at their ends, to make such elastic section?

A. No.

Q. 15. Then, in order to obtain a plain margin, it would simply be necessary to fasten the ends of the springs at a short distance from the ends of the tubes made in the covering material, would it not?

(Objected to as leading and because Mr. Zimmerman, in his effort to adjust his own former testimony, has assumed coiled-wire springs, tubes, a plain margin, fastening of springs; and simply left it for the witness to say yes or no.)

A. Yes.

Q. 16. Now, Doctor, I want to ask your opinion as a physician, on the quality of this corset shown and described in this said Exhibit No. 10, what the effect of this elastic section is when placed in front or center of the corset, instead of being placed in the back or sides; what its physiological effect is upon the wearer, when the spring is so placed, over that of any other position it might occupy in the corset?

A. By the elastic gore being in front the expansion or contraction of the corset corresponds to that of the chest and abdomen.

545 The expansion of the chest is merely in front and not from the back. If the elastic gore was placed on the back, in the expansion and contraction of the chest in the act of respiration there would be a constant friction between the chest and the corset.

Q. 17. Suppose there was such an elastic section or gore placed under each arm, what would be the effect of such a corset, as compared with this Defendant's Exhibit No. 10?

A. It would be but little better than it would to place it on the back.

Q. 18. Then, if I understand your answer, you consider that when the elastic gore is placed in front it is in the best possible position, and removing it from that towards the sides or back detracts from

the benefit of its elasticity in proportion as it is moved towards the back?

A. I do.

Q. 19. Suppose, now, that in place of one elastic section two are used and placed on the sides of the corset. Would that make it as good as when the elastic section is in the center—in front?

A. I think not.

Q. 20. Please give us the reason for this opinion.

A. Because the expansion of the chest and abdomen is more at the front than at the sides, and, as the elastic gore recedes from the front towards the back, the friction between the corset and the body must increase.

Q. 21. Are you familiar with the British patent No. 3451 of 1866, and marked "Defendant's Exhibit No. 5;" do you understand the construction of the elastic section therein described?

A. I am, and I do.

Q. 22. Wherein does it differ from the elastic section shown and described in British patent shown in "Defendant's Exhibit No. 10?"

A. I see but very little difference, if any.

546 Q. 23. Wherein does the chief difference lie between the elastic sections described in Exhibits No. 10 and No. 5—I refer, in particular, to the springs?

A. I don't know as I hardly understand that question.

Q. 24. I mean what material is the spring made of in Exhibit No. 5, and how is it made?

A. The spring in No. 5 is brass coiled wire.

Q. 25. Please look at the description given in the specification of Exhibit No. 5, and refresh your memory upon that subject.

A. I was mistaken in the wire; it is rubber springs.

Q. 26. Now, is this a single or continuous spring extending through the entire section?

(Objected to as leading.)

A. It is a continuous.

Q. 27. In your opinion, as a practical mechanic, would the function or effect of this elastic section be altered by substituting a coiled brass wire spring in place of the rubber cord, answering the purpose of a spring?

A. It would not, as I see.

Q. 28. How is the rubber spring held in place in this elastic section?

A. By the stitching between the tubes at the end where the rubber turns to enter the next section.

Q. 29. In this case, then, if I understand you, the springs rest on the end of the stitching forming the tubes in the elastic section?

(Objected to as leading.)

A. Yes.

Q. 30. In complainant's patent granted to Florsheim February

22, 1881, No. 238,100, what kind of a spring do you find specified in the elastic section of said corset?

A. Coiled-wire spring.

547 Q. 31. Of how many pieces does it consist?

A. It seems to be one piece.

Q. 32. How is this spring arranged in the elastic section?

A. In groups of two or more coils; then a space between, and then another group.

Q. 33. How is the covering material made in this elastic section—that is, how are the parts constructed?

A. Well, it's by stitching back and forth to form grooves in sections of two or more for the reception of the springs, leaving a margin at the edge to fasten to the corset.

Q. 34. How are the springs held in this construction?

A. By the stitches forming the grooves where the spring turns to enter the next groove.

Q. 35. What, if any, difference is there between the construction of the elastic section shown in this patent and that of British patent No. 3451 of 1866, "Defendant's Exhibit No. 5?"

(Objected to because there is no elastic section shown in Exhibit "No. 5," as assumed by the question, there being no drawing.)

A. I see no difference in the construction, except only in the material used for springs.

(Defendant's counsel here offers in evidence certified copies of drawings of the elastic gore and hip pieces, forming a part of patent No. 224,559 for overalls granted to Schilling and Florsheim February 17, 1880, and requests the same to be marked "Defendant's Exhibit Overall Drawings;" also certified copies of drawings of the elastic back section, hip gore, and ends of suspenders of patent for corset granted to Schilling & Florsheim November 25, 1879, and numbered 222,082, and requests the same to be marked "Defendant's Exhibit Corset Drawing.")

548 (Counsel for complainants objects to the drawings "Defendant's Exhibit Overall Drawings" and "Defendant's Exhibit Corset Drawings" because they are not proper evidence. The only evidence which, under the law, can be introduced under the commissioner's certificate are copies of drawings which exist in the Patent Office. These drawings never existed in the Patent Office and do not.)

Further taking of testimony here adjourned till 2 o'clock p. m. same day and place.

Met pursuant to adjournment. Present as before and examination of witness, W. H. ROBINSON, resumed.

Q. 36. Look at the drawing of letters patent of the United States No. 222,082, granted Schilling and Florsheim November 25, 1879, for improvement in corsets and state how the springs are arranged in both the back section and the hip gores.

A. They are arranged in groups of two or more, leaving a margin on the edge to attach to the corset.

Q. 37. Please look also at letters patent of the United States No. 224,559, granted to the same parties February 17, 1880, and state, if you please, what the arrangement of the springs is in the elastic gore placed in the back of the pantaloons shown and described in said patent.

A. They are arranged in groups of two or more, with a margin at the edge, the same as in the corset patent No. 222,082, November 25, 1879.

Q. 38. Now, please look at "Defendant's Exhibit Overalls Drawing" and state what further you find in the construction of the springs.

A. I find the springs are arranged continuous; some of them twice across and some three times, making a continuous spring two
549 or three times across. I see nothing more than that—nothing different. It is not a continuous spring, only in the sense it is not cut off, but it does not assist the next coil by not being cut off.

Q. 39. Now, please look at "Defendant's Exhibit Corset Drawing" and state, if you please, whether the construction of the springs in the elastic back section is like or unlike that of the springs shown in the "Defendant's Exhibit Overall Drawing."

A. The construction of the springs is like the springs in the overall drawing.

Q. 40. Now, look again, please, at the patent to Simon Florsheim, No. 238,100, and examine the construction of the elastic section therein shown, and state what difference you find therein and that of the elastic section shown in patents Nos. 222,082 and 224,559 previously alluded to.

A. The springs in 238,100 is [are] arranged in groups, but continuous from one group to another, while in Nos. 222,082 and 224,559 they are arranged in groups, but not connected one group with another, as in the foregoing.

Q. 41. That, then, as I understand you, is really all the difference that exists between said patents granted to Schilling and Florsheim, Nos. 222,082 and 224,559 and 238,100?

A. That's all the difference there is.

Q. 42. Then I want to ask you if, by making the spring continuous from group to group, there is any new function performed by said spring, or if its relation to the plain margin, to the puckered covering material, forming — of the tubes therein or fastening the springs to the covering material, is in any way altered or affected?

A. There is no new function performed by making continuous, and the spring is interrupted as though cut off at each end.

Q. 43. Please explain what you mean by the spring being cut off at each end.

550 A. I mean by being cut off at each end the spring only goes once across the gore. The effect is the same as though each spring was separate from the others.

Q. 44. What will be the effect, if any different, when the springs are made continuous in each separate group only?

A. There would be no difference in effect. The spring would be the same as though separate and fastened at each end.

Q. 45. Then, if I understand you, the entire novelty of this construction does not lie in the combination of this continuous spring arranged in groups and from group to group, with puckered covering material, tubes therein, plain margin, and fastening of the springs to the covering material, but solely in the fact that there is one continuous spring throughout the whole section?

A. All that I see different from the others is the continuous spring from end to end of the different groups.

Q. 46. After the springs had once been made continuous in the groups, as shown in patents to Schilling and Florsheim, Nos. 222,082 and 224,559, and having the puckered covering material arranged in tubes and in groups, was there any mental effort required, in your opinion, to make such spring continuous from group to group?

Question objected to because it assumes that the patents issued to Schilling and Florsheim show the springs continuing from tube to tube throughout a group, which is not a fact; also that there were plain margins shown to the elastic section, which is not a fact.

A. Not in the least. I see no mental effort required to make the springs continuous from group to group.

Q. 47. Does the elastic section under the arms have any relation to or is it in any way modified in its functions by the lacing placed in the back of the corset, as shown in the patent to Florsheim, No. 238,100?

551 A. It has not any.

Q. 48. I now hand you copy of patent 238,101, granted to Simon Florsheim February 22, 1881, for improvement in elastic gore, gusset, etc., for wearing apparel, and ask you if, from the description and drawings therein shown, it would be possible to make an elastic gusset or gore for wearing apparel without further contriving or inventing some device or means not therein shown, so as to complete the structure intended to be made?

A. I don't think it would.

Q. 49. Please state your reason.

A. Because there is no way devised for getting the springs in the tubes. The tubes do not go to the edge, but are closed apertures—that is, do not extend from edge to edge. There is no way to get the springs in without cutting a hole in the end of the tube.

Q. 50. Are there any tubes provided for the split tubes or other similar metallic fastening device to attach to the ends of the springs?

A. There is no device in the drawing.

Q. 51. Is there any in the specification?

A. I think not.

Counsel for defendant offers in evidence certified copy of letters patent of the United States, granted to Mary J. C. Van Ostrand, dated February 1, 1876, and numbered 172,901, for improvement in corsets, and requests that the same be marked "Defendant's Exhibit Van Ostrand's Patent."

(Objected to by counsel for complainants as immaterial and incompetent.)

Cross-examination by L. L. COBURN, Esq.:

X Q. 1. You assume, do you, that the English patent, Exhibit No. 10, shows a plain margin in the drawings behind the edge of the corset that is attached to the elastic section?

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A. From the drawing, I should say it had.

X Q. 2. You assume the same with reference to the two patents issued to Schilling and Florsheim—one for overalls and one for corsets, do you?

A. I do assume the same from the drawings.

X Q. 3. You do not find a word in either of the three patents about a plain margin on the elastic section, do you?

A. I have gone by the drawings; the drawings represent it; but I could not state positive that anything is or is not said about the plain margins in the description.

X Q. 4. You say the drawings represent them in your last answer. In your previous answer you said you assumed they were there behind the edges of the corset body. Do not the drawings in each patent show the edge of the fabric to which the elastic section is sewed, extending to the springs, leaving no plain margins in sight between the edge of the garment into which the elastic fabric is sewed and the springs?

A. I hardly know how to answer that, but I will say this: If the springs went beyond the stitching or to the edge of the gusset the drawings would show it, which it does not show. The springs are covered in the gusset, but their form is shown through the material to the edge of the corset, but not to the stitching, which should be the case if they went to the edge of the gusset.

X Q. 5. In the puckered portion of the gusset in sight the form of the puckered cloth is shown, is it not, and not the form of the spring at all? You don't see that the spring is coiled, for instance. Now, if a portion of that puckered section be covered by a plain cloth not puckered or sewed between the springs would not you see a plain surface when you looked at the plain cloth which covered the puckered cloth?

553

A. The coil of the spring cannot be seen, but the form—the shape of it—can be, and if the spring went to the edge, instead of being a smooth surface, it should show a dark and light shade—dark between the springs and light where it comes over it—which it does not.

X Q. 6. Is not the form of the spring in the uncovered portion of the gusset shown because the covering material is stitched down between the springs, so that when you look at that sewed and puckered surface it has the appearance indicated between the edges of the corset body?

A. No; it does not. The form of the springs are shown; also the stitching between the springs.

X Q. 9. Now, supposing you cover up a portion of the stitched and puckered gusset by a plain, smooth cloth, which was neither

puckered nor sewed down between the springs, and looked at the plain, smooth piece of cloth and represented it in a drawing; would you represent it as being puckered and shaded because it has a puckered and shaded surface behind it that was covered up and not in sight?

(Question objected to because it assumes a condition of things not existing in a completed corset, because the cloth overlapping the elastic section must be sewed down, and then, if the springs extended under it, the drawing would show a shading, as the witness has already stated in the preceding answer would be the case.)

By Mr. COBURN: Counsel Zimmerman makes the same error that witness Zimmerman made. The attaching of the edge of the corset fabric to the covering material of the gusset across the springs would leave the balance of the fabric material perfectly smooth; whether it lay on the surface of the puckered material, back of the line of stitches, or above the puckered surface, it would be a smooth,
554 plain surface that would be visible and in sight. That surface would neither be puckered nor sewed down between the springs in the manner of the puckered material, but would cover the puckered material so that it would not be visible.

By Mr. ZIMMERMAN: This statement of counsel for plaintiff is materially different from his previous statement in this, that it does not now assume that the coiled-wire springs extend under the overlapping edges of the corset, or, in other words, that there is a margin there, and when overlapping the edges of the corset such surface or edge is shown plain; but if he assumes that the springs extend underneath this overlapping edge, which must then be sewed down in order to unite the two parts, shading lines must then be shown on each side of the springs; and if counsel for plaintiff will carefully examine my statements he will find them to be correct, and that he has assumed two conditions of things, one of which does not exist.

A. I should say, according to that question, the drawing would be incomplete and not like the drawing represented here (pointing to patent), which shows a corset complete. If the drawing is made as it should be and the stitching went over the springs and depressions between them it would show the form of the spring. If the edge of the corset rested on the end of the springs and the stitching was outside of the springs—that is, beyond the end of it—it would not show the form of the springs under the edges of the cloth, as there would be a margin where the corset was attached to the gusset, although it might be very narrow. If the stitching was so long that it merely pierced the cloth where the springs were, the work could not hold. In answer to the question I should say I would not.

555 Further taking of testimony here adjourned till Wednesday, October 17, 1883, at 10 o'clock a. m., same place.

WEDNESDAY, *October* 17, 1883.

Met pursuant to adjournment.

Present: As before.

Cross-examination of witness resumed:

X Q. 8. Please look at the drawings and the specification of the patent No. 238,100, issued to Simon Florsheim and Thos. H. Ball for a corset, and state whether you find a plain margin with a coiled-wire spring extending from tube to tube and from group to group and fully described in the specification and unequivocably and undoubtedly made the subject-matter of the patent.

A. I can't understand that question. There are too many questions put into one. If you will divide it so I can answer it I'll try to.

X Q. 9. Do you also find in that patent, No. 238,100, a corset shown and described with elastic sections located on the sides and extending from under the arms down over the hips; which elastic sections are constructed in the manner shown and described and placed in a corset laced in the back?

A. I do.

X Q. 10. If it would be much better to locate the elastic sections in front, over the abdomen, do you know why the defendants do not make their corsets in that way and avoid a lawsuit?

A. I don't know anything about their business; am not connected with them.

By Mr. CHUMASERO: I am informed by the witness that he desires to make some correction in his testimony given yesterday. What it is I have not been informed, but desire the examiner to state to the witness that he is at liberty now to make such correction if he so desires.

556 Counsel for complainants thinks it but fair for the court to know that the last statement made above was dictated by Judge Chumasero, while the examination has been mostly conducted on the part of defendant by Mr. Zimmerman, who has been in close consultation with the witness, and that Mr. Zimmerman commenced asking a question in redirect when interrupted by the judge to say that he, the judge, has not been informed as to the corrections.

Judge Chumasero states that the learned counsel is mistaken when he states that Mr. Zimmerman had just been in close conversation with the witness. Such was not the fact, as both the witness and Mr. Zimmerman will state, if necessary. I was informed of the fact of the witnesses' desire and so stated it; and he further says that he has never said or done anything in his life which he is unwilling that the court should either hear or investigate.

Counsel for complainants will simply call the attention of the court to the word "just," used by the learned judge in his last statement, as going to show that while in terms he seems to deny my statement in reality does not deny it, and my statement is wholly true, and I know it to be true, because I have seen the gentlemen in

consultation and do not believe they would deny it and would not believe it if they did.

(Explanation by witness:)

There was only one word I wished to change, and that was when I was examined on patent 238,101, dated February 22, 1881, I should have said "closed tubes" instead of "closed apertures."

WM. ROBINSON, *M. D.*

Subscribed and sworn to before me this 17th day of October, A. D. 1883.

JNO. C. MACGREGOR,
Notary Public.

557 Further taking of testimony here adjourned till 2 o'clock p. m., same day and place.

Met pursuant to adjournment.

Present: As before.

Whereupon JOSEPH E. TILT, the next witness, being first duly sworn, testified as follows:

By Mr. CHUMASERO:

Q. 1. What is your name, age, residence, and occupation?

A. Joseph E. Tilt; age, 40; residence, Lake View, Illinois; occupation, boot and shoe manufacturer.

Q. 2. In what business were you engaged in the year '78 and spring of '79?

A. In the manufacture of boots and shoes.

Q. 3. Did you then know Augustus Florsheim and Simon Florsheim, of Chicago?

A. Yes, sir.

Q. 4. Were you at that time engaged in or doing business for them or either of them; if so, what?

A. I made some shoes for Florsheim Brothers about that time.

Q. 5. About how near, Mr. Tilt, can you fix that time, as near as you can recollect?

A. Well, I should say during the year '79.

Q. 6. During what season of the year '79 do you think it was?

A. I could not give any exact date.

Q. 7. Can't you give the season?

A. I made shoes for Florsheim Brothers at various times during the year.

Q. 8. During that time do you remember an occasion when Augustus Florsheim and Simon Florsheim came to your shop or place of business with an elastic gore for gaiters or shoes?

A. I made some shoes for Florsheim Brothers about that time.

558 Q. 9. Please look upon the article now handed you and state how and in what respect, if any, it compares with the elastic gore brought you on that occasion.

A. It resembles it somewhat.

Q. 10. Describe, if you please, the elastic gore brought to you by the Messrs. Florsheim, both in regard to the material of which it was composed, the particular springs contained therein, and what, if anything, there was at the end of the springs.

A. It seemed to be composed of (as far as I can recollect) cloth and leather, with a spiral brass spring between, and placed in somewhat this manner (referring to sample shown him by counsel), as this, with margin left on the sides.

Q. 11. When you say "in this manner" do you refer to the article which I handed you and which you now have in your hands?

A. Yes, sir.

Counsel for defendant here offers in evidence the article spoken of by witness, and requests the same to be marked "Defendant's Exhibit Shoe Goring Model."

Q. 12. Please state, Mr. Tilt, what kind of springs those were—whether single springs or continuous.

A. To the best of my recollection, the springs were continuous.

Q. 13. Did you manufacture any shoes or gaiters in which were inserted the elastic gores last spoken of; and, if so, how many?

A. Several pairs.

Q. 14. Why did you not make more of them?

A. Because I received no orders from Mr. Florsheim for any more.

Q. 15. Did you, a day or two after Mr. Florsheim brought those elastic gores to your shop, on the occasion just mentioned or at any time, tell Mr. Simon Florsheim that the material was no
559 good; that by sewing the same into the uppers of gaiters with a sewing machine the needle of the sewing machine had cut the wire at several places, which made it useless for shoes or gaiters, or anything to that effect?

A. I do not remember that circumstance.

Q. 16. In point of fact, did the needle of the sewing machine cut the wire at several places or at all, making it useless for shoes or gaiters?

A. It could easily have done so.

Q. 17. Please explain, with that margin (showing Defendant's Exhibit Shoe Goring Model), how that could have happened.

A. In preparing the goring, if the wires had projected beyond their proper place, the needle must of necessity have cut it.

Q. 18. If the goring were properly prepared, would that result occur?

A. Not necessarily.

Q. 19. Did you deem those elastic gores unfit for using in gaiters or shoes from the fact that the wires would necessarily be cut by the needles of the sewing machine?

A. No, sir.

Q. 20. What is your opinion, as a mechanic, as to the feasibility or proper adaptation of those elastic gores in and to the manufacture of shoes or gaiters—I mean the elastic gores presented by Mr. Florsheim on the occasion you speak of?

A. The question does not seem to me to be very plain. Do you simply ask me if the project was feasible?

Q. 21. Yes; was it feasible?

A. It seemed to me to be so, but I did not think it would be a success. The elastic gore seemed to me to be too clumsy for the purpose intended.

Q. 22. How long have you been engaged in the business, Mr. Lint?

A. Thirty years.

560 (Same objections are made to this deposition that were made to the last deposition, and cross-examination waived.)

JOSEPH E. TILT.

Subscribed and sworn to before me this 17th day of October, A. D. 1883.

JNO. C. MACGREGOR,
Notary Public.

Defendant's counsel here introduces the following exhibits, viz:

No. 1. Certified copy of file-wrapper and contents in the matter of the letters patent granted Simon Florsheim, assignor of one-half to Thos. H. Ball, February 22, 1881, No. 238,100, for improvements in corsets, and the same is marked "Defendant's Exhibit File-Wrapper and Contents A."

2d. Certified copy of file-wrapper and contents in the matter of the letters patent granted Simon Florsheim, assignor of one-half to Thomas H. Ball, February 22, 1881, No. 238,101, "improvement in elastic gore, gusset, etc., for wearing apparel," and the same is marked "Defendant's Exhibit File-Wrapper and Contents B."

Defendant here closes his proofs.

JNO. C. MACGREGOR,
Notary Public.

561 DEFENDANT'S EXHIBIT No. 1.

No. [Vignette.] 218,322.

The United States of America to all to whom these presents shall come:

Whereas Gustav Schilling, of Chicago, Illinois, has presented to the Commissioner of Patents a petition praying for the grant of letters patent for an alleged new and useful improvement in gloves, he having assigned one-half of his right, title, and interest in said improvement to Simon Florsheim, of same place, a description of which invention is contained in the specification, of which a copy is hereunto annexed and made a part hereof, and has complied with the various requirements of law in such cases made and provided; and

Whereas, upon due examination made, the said claimant is adjudged to be justly entitled to a patent under the law:

Now, therefore, these letters patent are to grant unto the said

G. SCHILLING.
Gloves.

No. 218,322. Patented Aug. 5, 1879.

562

Fig. 1

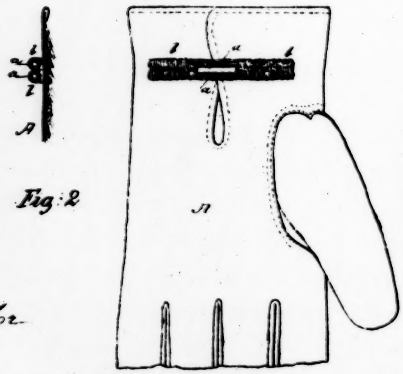


Fig. 2

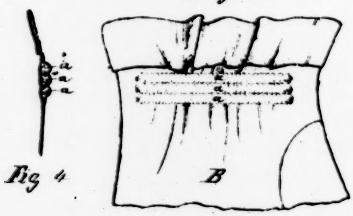


Fig. 3

Fig. 4

No. 217
Fletcher & Schilling } 562

Witnesses
Ernst Fehrs
Emil H. Frommann

Inventor
Gustav Schilling
By Wm H. Lotz
Attorney

Schilling and Florsheim, their heirs or assigns, for the term of seventeen years from the fifth day of August, one thousand eight hundred and seventy-nine, the exclusive right to make, use, and vend the said invention throughout the United States and the territories thereof.

In testimony whereof I have hereunto set my hand and caused the seal of the Patent Office to be affixed, at the city of Washington, this fifth day of August, in the year of our Lord one thousand eight hundred and seventy-nine, and of the Independence of the United States of America the one hundred and fourth.

Seal Patent Office, United States of America.

A. BELL,
Acting Secretary of the Interior.

Countersigned:
W. H. DOOLITTLE,
Acting Commissioner of Patents.

563 UNITED STATES PATENT OFFICE.

GUSTAV SCHILLING, of Chicago, Illinois, assignor of one-half his right to Simon Florsheim, of same place.

Improvement in Gloves.

Specification forming part of Letters Patent No. 218,322, dated August 5, 1879; application filed February 1, 1879.

To all whom it may concern:

Be it known that I, Gustav Schilling, of Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful improvement in gloves; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings forming part of this specification.

This invention relates to an elastic attachment to the rear end of gloves, so as to allow a sufficient expansion of the same for admitting the hand, and then by contraction to make a close fit around the wrist of the hand, whereby clasps and buttons are done away with; and it consists in a series of small coil-springs inclosed in finely-wrinkled leather tubes, and attached with their ends across the wrist portion of the glove.

In the drawings,

(Here follows diagram marked page 562.)

Figure 1 represents an elevation of a glove with a slitted wrist portion and with my elastic attachment. Fig. 2 shows a section of the same. Fig. 3 represents a glove with an endless wrist having my elastic attachment; and Fig. 4, a section of the same.

a a are a series of springs, made of very fine brass wire, coiled upon a small mandrel, so that their spirals are successively in close contact with each other. These springs, being cut off to their required lengths, are inserted into flexible and yielding tubes *b*, made by uniting two sheets or strips of thin leather with parallel seams of stitching, so as to form a tube between two such seams. These leather tubes are made about twice the length of the springs, and are contracted over the springs, so as to form a multitude of small wrinkles, which will open with the expanding of said springs, and will not impede their elasticity, and yet will hide and protect the same against injury. The ends of these springs *a* are secured into the leather tubing *b* and to the glove A, across the slit on the wrist portion of the same, as shown in Fig. 1.

In Fig. 3 is shown a glove, B, which is made wide enough for the hand to enter its rear end. In such gloves I place the springs *a*, between the material and the lining, in a similar manner as above described, so that these springs will draw the said glove material into numerous small wrinkles for tightening the same around the wrist.

The number of springs to be applied or the size of the same may be varied to suit the quality and size of glove.

I am aware that elastic woven bands, straps, or gores are well known and have long been used in gloves, such bands, straps, or gores being composed of india-rubber strands, upon which, when under tension, a filling of small threads has been woven; and I therefore disclaim the invention, broadly, of an elastic attachment for the purposes mentioned.

I am also aware of the shoe-fastenings of Fitch and Jones, composed of a spiral spring coiled around an elastic core, and permanently secured to the shoe at one end only; and therefore I disclaim the invention, broadly, of a spiral-spring coil to be used for gloves in the manner described by me.

I am also aware that in an English patent, No. 3,451 of 1866, there is described an elastic gore for shoes, composed of leather, divided by stitches into numerous tubes, through which, when wrinkled, a small india-rubber strand is threaded back and forth; and I therefore disclaim the invention described in such English patent.

What I claim as my invention and desire to secure by letters patent is—

The combination, with a glove, of a series of spiral metal springs, *a*, inclosed in separate puckered tubes, and permanently attached at both ends to the wrist portion of the glove, constructed substantially as described and shown.

GUSTAV SCHILLING.

Witnesses:

EMIL H. FROMMANN.

GEO. FROMMANN.

G. SCHILLING. 563a

Elastic Gore for Gaiters.

No. 214,712. Patented April 22, 1879.

No 217
Floersheimer Sch 563a
v.
Schilling

Fig. 1.

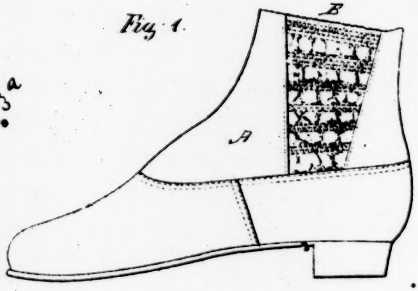


Fig. 2.

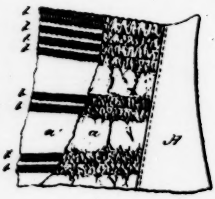


Fig. 3.

Fig. 4.

Witnesses
Ernst Jebsen
Emil H. Frommann

Inventor.
Gustav Schilling
By Wm H. Lotz
Attorney

563*b*

UNITED STATES PATENT OFFICE.

GUSTAV SCHILLING, of Chicago, Illinois, assignor of one-half his right to Simon Florsheim, of same place.

Improvement in Elastic Gores for Gaiters.

Specification forming part of Letters Patent No. 214,712, dated April 22, 1879; application filed February 7, 1879.

To all whom it may concern:

Be it known that I, Gustav Schilling, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful improvement in elastic gores for gaiters; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, forming part of this specification.

This invention relates to the construction of the elastic material used in gaiters and bootees for insuring a close fit around the angle of the foot; and it consists in the application of a series of small coil-springs inclosed in finely-wrinkled tubes formed by uniting two flaps of thin leather with parallel seams of stitching, and arranged in series with blank spaces between the different series, so as to adjust the tension of the various parts of the elastic gore.

In the drawings,

(Here follows diagram marked page 563*a*.)

Figure 1 represents a side view of a gaiter provided with my improved elastic gores. Fig. 2 represents an enlarged view of the elastic gore with the springs partly exposed. Fig. 3 represents a vertical section through the gore, and Fig. 4 a longitudinal sectional view of one of the springs and the manner of attachment to the gaiter material.

A represents the gaiter, and B the elastic gore, which latter is composed of two flaps, *a a'*, of thin leather, of about twice the width the gore is to have when finished, and united by parallel seams of stitching, so as to form small tubes between two such seams, into each of which is inserted a small spring, *b*. These springs *b*, I make of very fine brass wire, which I coil upon a small mandrel, so that its spirals are successively in close contact with each other.

The leather tubes, after the springs are inserted therein, are contracted over the same, so as to form a multitude of small wrinkles equally distributed over the whole length of the springs, and the ends of the latter I secure in the ends of the tubes in the gore, which again, with its edges, is secured by stitching between the edges of the material and the lining of the gaiter in the usual manner. These springs *b*, I arrange in said gore in series of two, three, or four, with a blank space between each two series, in accordance

with the required elastic resistance necessary for making a tight and yet easy fit of the gaiter around the angle of the foot.

Heretofore the gores for gaiters were made of an elastic fabric composed of rubber shirrs interwoven with or covered by silk or cotton threads. Such gores, however, were not durable, soon lost their elasticity, and could not be blackened with the rest of the shoe, and therefore soon had a worn-out appearance, while a gore of my above-described construction will exert a uniform tension, which will not relax with its use and will outlast the gaiter, can be shined with blacking, and will be impervious to water as much as the rest of the shoe.

The diameter of the springs *b* and the size of wire of which they are made may be varied with their location in the gore, to be proportional with the required tension.

The unpleasant feeling of rubber to the skin, particularly in the summer-time, is well known, and a substitute of leather gores is therefore something desirable.

What I claim as my invention is—

The elastic gore for gaiters and bootees, composed of wrinkled flaps *a a'* and coiled metal springs *b*, placed in tubes between the flaps, and arranged in series with blank spaces between the series, substantially as described and shown.

GUSTAV SCHILLING.

Witnesses:
ERNST JEBSEN.
EMIL H. FROMMANN.

564 DEFENDANT'- EXHIBIT No. 3.

No. [Vignette.] 222,082.

The United States of America to all to whom these presents shall come:

Whereas Gustav Schilling and Simon Florsheim, of Chicago, Illinois, have presented to the Commissioner of Patents a petition praying for the grant of letters patent for an alleged new and useful improvement in corsets, a description of which invention is contained in the specification, of which a copy is hereunto annexed and made a part hereof, and have complied with the various requirements of law in such cases made and provided; and

Whereas, upon due examination made, the said claimants are adjudged to be justly entitled to a patent under the law:

Now, therefore, these letters patent are to grant unto the said Gustav Schilling and Simon Florsheim, their heirs or assigns, for the term of seventeen years from the twenty-fifth day of November, one thousand eight hundred and seventy-nine, the exclusive right to make, use, and vend the said invention throughout the United States and the territories thereof.

In testimony whereof I have hereunto set my hand and caused

Seal Patent Office, United States of America.

the seal of the Patent Office to be affixed, at the city of Washington, this twenty-fifth day of November, in the year of our Lord one thousand eight hundred and seventy-nine, and of the Independence of the United States of America the one hundred and fourth.

A. BELL,
Acting Secretary of the Interior.

Countersigned:
H. E. PAINE,
Commissioner of Patents.

566 UNITED STATES PATENT OFFICE.

GUSTAV SCHILLING and SIMON FLORSHEIM, of Chicago, Illinois.

Improvement in Corsets.

Specification forming part of Letters Patent No. 222,082, dated November 25, 1879; application filed March 10, 1879.

To all whom it may concern:

Be it known that we, Gustav Schilling and Simon Florsheim, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful improvement in corsets; and we do hereby declare the following to be a full, clear, and exact description thereof, which will enable others skilled in the art to which this invention appertains to make and use the same, reference being had to the accompanying drawings, which form part of this specification.

The object of our improvement is the production of a corset specially adapted for use in warm weather and in warm rooms, and under circumstances of work or exercise which will produce free perspiration; and to that end we have adopted a construction and an arrangement of parts which will insure a constant, uniform, accurate fit of the corset to the wearer under all changes of her position without chafing or annoying in any part, and will be cool, comfortable, and exceedingly durable. To that end india-rubber elastic portions are dispensed with, as these soon lose their elasticity and durability in the presence of animal heat and perspiration, and, instead of such, metallic spiral springs incased in puckered cloth tubes are used. For this same purpose, the corset, instead of being made in two parts, as usual, is made practically of a single part, the central back portion being made of the elastic material above referred to, inserted in the form of a piece with substantially parallel sides, so as to give an equal degree of elasticity to all parts of the corset. For this same purpose, also, gores of the elastic material above referred to are inserted at the sides, where an annoying pressure is ordinarily given by corsets to the hip-bones, and shoulder-straps of the same elastic material are provided, in order to hold the corset, which should not fit tightly in any part, from a tendency to slip down under some circumstances.

The novelty of our invention consists in the application to a corset constructed substantially as described of shoulder-straps composed of wire springs in puckered tubes, substantially as described, and of the entire corset as a new article of manufacture, having the elastic back, hip-gores, and shoulder-straps, all as more fully hereinafter described.

In order that those skilled in the art may understand how to make our improved corset, we now describe the same more minutely, having reference to the drawings, in which—

(Here follows diagram marked page 565.)

Figure 1 is a front view of the corset; Fig. 2, a rear view of the same; and Fig. 3, a longitudinal central section through one of the elastic portions, the same being on an enlarged scale.

Similar letters denote corresponding parts in each figure.

A A represent the two similar sides or sections of a corset made of the usual general form, and having longitudinal whalebone ribs and buttoning-clasps in front, made in any ordinary manner. C is an elastic strip with substantially parallel sides interposed between the sections A A, and uniting them at the back. D D are elastic gores, inserted in the lower portions of the sides, so as to cover the hip-bones, and E E elastic shoulder-straps, either attached at both ends to the upper sides of the corset or arranged to button at one end.

The elastic strip C is composed of two pieces of cloth of about double the width of the space it is intended to occupy when puckered. Across the two pieces, placed one above the other, rows of stitching are run, so as to form tubes between each two of the seams, of a size to receive and hold quite closely the metallic spiral spring which is to be inserted. These spring-tubes are arranged in series of three or four, so as to leave spaces between the groups of tubes. Into these tubes, previously puckered to the proper degree, are inserted small springs *d*, preferably of brass wire, coiled spirally, with the coils in contact, and each of the required length, and fastened at the ends to the cloth, or fastened both to the cloth and the edge of the sections A A.

The springs in the gores D D differ only from these already described, in that they necessarily differ in length to conform to the angular sides of the gores, and are not put in groups, as, preferably, they are not put in groups in the shoulder-straps E E.

It will be observed that these metallic springs thus interposed in the thin puckered fabric can be extended only the length of the tube itself, which is properly proportioned in the first instance, and therefore such springs cannot receive an injurious tension, and
567 therefore will be very durable; that from their arrangement in groups in the back portion of the corset there will be left vacant spaces, which will scarcely obstruct the transpiration at that part of the body; that from the shape of the elastic portion C there will always be an equal capacity to resist tension at every point and in every movement of the body; that the hip-gores will press with

G. SCHILLING & S. FLORSHEIM.

Corset.

No. 222,082. Patented Nov. 25, 1879.

Fig: 1.

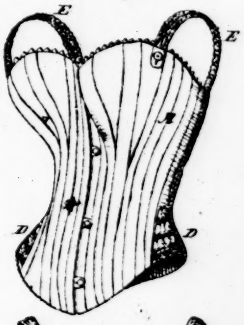


Fig: 3.

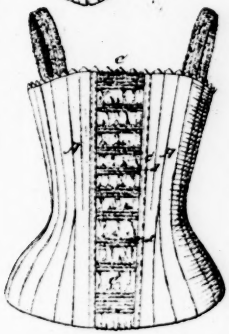


Fig: 2.

Witnesses

Ernst Fehan

Gust. Dommerque

Inventors

Gustav Schilling

Simon Florsheim

By Wm H. Lotz

Attorney

elastic force over the hip-bones and will not chafe or annoy, and that the elastic shoulder-straps will enable a corset uniformly more loose than usual to be worn without danger of its slipping down.

The springs themselves will be durable, not being affected by the heat or moisture of the body, and the whole corset thus will be durable, and in addition cool and comfortable, and thereby not become stained and serve by its stains to injure the dress which covers it.

We are aware that it is not original with us to use metallic wire coiled springs inclosed in cloth tubes in corsets, or to make a corset practically in one piece by inserting an elastic portion in the back, or to use elastic gores in corsets at the hips, or to provide corsets with partially elastic shoulder-straps, and we disclaim all such inventions, broadly; but, as we believe that we have certain novelties in our corset for which we are entitled to letters patent,

We do claim as new and our invention—

1. In combination with a corset, the elastic shoulder-straps composed of wire springs in puckered tubes throughout their entire length, substantially as described and shown.

2. As a new article of manufacture, the corset described and shown, having an elastic back-piece, elastic hip-gores, and elastic shoulder-straps, all constructed and arranged substantially as specified.

GUSTAV SCHILLING.
SIMON FLORSHEIM.

Witnesses:
EMIL H. FROMMANN,
ERNST JEBSEN.

568 English, Miller, 1866.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE.

[Vignette.]

To all persons to whom these presents shall come, Greeting:

This is to certify that the annexed is a true copy from the bound volumes of this office of the specification in the matter of the English letters patent granted James Miller and James Miller, Jr., December 31, 1866, number 3451, for improvement in elastic gussets.

In testimony whereof I, V. D. Stockbridge, acting Commissioner of Patents, have caused the seal of the Patent Office to be affixed this seventh day of December, in the year of our Lord one thouand eight hundred and eighty-two, and of the Independence of the United States the one hundred and seventh.

Seal Patent Office United States of America.

V. D. STOCKBRIDGE,
Acting Commissioner.

569 A. D. 1866, 31st December. No. 3451.

Elastic Gussets.

Letters patent to James Miller and James Miller, Junior, of No. 5 Park Road, North Bow, in the county of Middlesex, for the invention of "improvements in the manufacture of elastic gussets."

Sealed the 18th June, 1867, and dated the 31st December, 1866.

Specification in pursuance of the conditions of the letters patent filed by the said James Miller and James Miller, Junior, in the Great Seal Patent Office on the 29th June, 1867.

To all to whom these presents shall come we, James Miller and James Miller, Junior, of No. 5 Park Road, North Bow, in the county of Middlesex, send greeting:

Whereas Her Most Excellent Majesty Queen Victoria, by her letters patent bearing date the thirty-first day of December, in the year of our Lord one thousand eight hundred and sixty-six,
570 in the thirtieth year of her reign, did, for herself, her heirs and successors, give and grant unto us, the said James Miller and James Miller, —, her special licence that we, the said James Miller and James Miller, —, executors, administrators, and assigns, or such others as we, the said James Miller and James Miller, —, executors, administrators, and assigns, should at any time agree with and no others from time to time and at all times thereafter during the term therein expressed, should and lawfully might make, use, exercise, and vend within the United Kingdom of Great Britain and Ireland, the Channel Islands, and Isle of Man an invention for "improvements in the manufacture of elastic gussets," upon the condition (amongst others) that we, the said James Miller and James Miller, —, executors or administrators, by an instrument in writing under our or their or one of their hands and seals or under the hand and seal of one of us or them should particularly describe and ascertain
the nature of the said invention and in what manner the
571 same was to be performed, and cause the same to be filed in the Great Seal Patent Office within six calendar months next and immediately after the date of the said letters patent.

Now, know ye that I, the said James Miller, Junior, on behalf of myself and the said James Miller, do hereby declare the nature of the said invention and in what manner the same is to be performed to be particularly described and ascertained in and by the following statement thereof—that is to say:

This invention has for its object improvements in the manufacture of elastic gussets suitable for use in boots and stays and for other purposes. In the manufacture of gussets it is usual to weave the vulcanized India-rubber springs into the fabric in the process of manufacture, the India-rubber forming a portion of the warp of the fabric, or where the gussets are of leather the vulcanized India-rubber springs are commonly attached to the leather by means of

cement, and in either case each spring or line of India rubber has been a separate piece.

572 Now, according to our invention, we secure the vulcanized India-rubber springs between two pieces of woven fabric, leather or other material, by stitching with a sewing-machine, the stitches running in parallel lines and passing through the two pieces of fabric or material between the India-rubber springs, and the springs, in place of being each a separate piece, are in one piece, the length of vulcanized India-rubber cord at the end of each traverse across the gusset being turned round and caused to return parallel to itself; thus the liability of the India rubber to slip and work out of the gusset is much reduced. When gussets made in this manner are worked into boots or other articles the stitches by which they are secured are passed through a margin on each side of the gusset and not through the India-rubber part of the gusset, as heretofore.

In order that our invention may be fully understood and readily carried into effect we will describe the manner in which we prefer to proceed.

573 We first cut the material—leather, silk, cotton, or any other woven fabric—and the lining to the size required for the gusset when extended and for leaving the required margin. We then turn over the top edge and baste or tack it down to the lining; we then commence to stitch with a sewing machine a series of rows in parallel lines transversely across the gusset, the stitching passing through the two materials, commencing at the top and so on from row to row until the whole of the gusset is stitched; the distance between the rows of stitches will depend on the thickness of the India-rubber thread to be inserted; about 8 or 10 rows to the inch is usually a convenient distance; we then pass between the two materials into every space or cavity between the rows of stitches wires or needles, of a length somewhat longer than the width of the gusset and of the size of the cavity; the gusset is then ready to be contracted or drawn up to the size required; to do this we employ a machine made with two jaws, in a similar manner to a vice, one jaw being fixed and the other moveable, so that it may slide backwards or forwards to or from the fixed jaw by

574 means of a screw passing through the centre; the jaws are by preference of wood and are made flat on their upper surface; when the jaws are closed a row of teeth or pins of wire is driven into the upper surface of each jaw, the rows of teeth being made to correspond with the contour of the sides of the gusset; when this is done the moveable jaw is moved away from the fixed jaw in order to put in the gusset for the purpose of contracting or crimping it (the gusset still having the wires or needles in every cavity or row); we then lay the gusset on the machine or vice by placing each wire or needle between two of the teeth or pins on each jaw, the teeth or pins being at the same distance apart from one another as the wires or needles passing through the gusset, the gusset being in this manner fixed; we then screw up the machine or vice to bring the moveable jaw up to the fixed jaw; this contracts or draws up the

gusset to the size required; we now take the gusset out of the machine in its contracted form with the wires or needles still in,
575 as previously mentioned, and it is now ready for the process of filling with the India-rubber thread or cord; to do this we place it as it is on a table or stand and turn down over it a small plate of steel hinged to the table, and by pressing down this plate the gusset is held securely; we then withdraw the needles or wires and insert with a bodkin or needle in the same cavity or tunnel made by the wires the thread or strand of India rubber which is in one length; we commence at the top cavity to insert the India-rubber thread or cord and follow back in the next row or cavity, causing it to return parallel to itself, and so on the same from row to row until the whole of the cavities are filled with the India rubber; we then pull back the margin that is left as large as required and tack it down with an ordinary needle, and the gusset is ready for use; the bodkin or needle we prefer to employ for inserting the India-rubber thread is composed of a wire having a hole bored longitudinally into one of its ends; a short length of the end of the wire is thus formed into a tube; a portion of the side of the bodkin is
576 cut away to form a side opening in the rear end of this tube. This short tube at the end of the bodkin is for the purpose of holding the end of the thread of India rubber. To insert the end of the thread into the tube a loop of cotton is passed through the side opening above mentioned and caused to project out from the end of the bodkin. The end of the India-rubber thread is then passed through the loop and the loop is drawn back, by which means the end of the India-rubber thread is drawn into the tube, and as the tube will be internally of less diameter than the India-rubber thread, the end of the thread will be held securely. When it is desired to form a strong margin to the sides of the gusset (before withdrawing the needle or wires from the tubes or spaces formed between the rows of stitching) we press down onto the points at each end of the needles or wires a strip of canvas, the points being caused to pass through the middle of the strips. The strips are then pressed down on the points to bring them close up to the edge of the gusset,
577 and afterwards the wires are removed and the thread or strand of India rubber inserted, as above described, the India rubber being passed through the holes formed by the wires through the canvas, as well as being passed through the spaces or tubes formed across the gusset. When this is completed the canvas is doubled over, and the margin or edge of the gusset will be composed of two thicknesses of canvas, in addition to the fabric and lining of which the gusset is composed.

In witness whereof I, the said James Miller, Junior, have hereunto set my hand and seal this twenty-ninth day of June, in the year of our Lord one thousand eight hundred and sixty-seven.

JAMES MILLER, JUN. [L. S.]

Ex'd: E. H. M. McK.

577½ [Endorsed:] 2286, 8 D., '82. United States circuit court, northern district of Illinois. In equity. Simon Florsheim

G. SCHILLING & S. FLORSHEIM.

Pantaloon Garment.

No. 224,559. Patented Feb. 17, 1880.

Fig: 1.

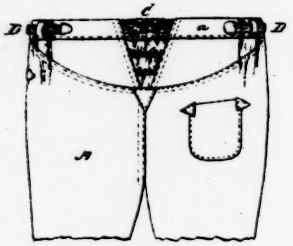
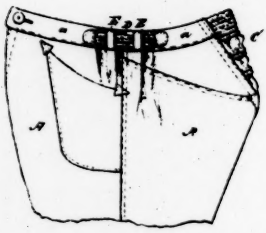


Fig: 3

No. 7 17
Florsheim et al
Schilling
} h. 579

Fig: 2.



Witnesses.
Ernst Jebsen.
Emil H Bornmann

Inventors
Gustav Schilling
Simon Florsheim
By Wm H Lotz
Attorney

and Thos. H. Ball *vs.* Gustav Schilling. "Defendant's Exhibit No. 5." Jno. C. MacGregor, notary public. [Jno. C. MacGregor, notarial seal, Cook Co., Ills.] Filed Feb. 2, 1883. W. H. Bradley, clerk.

578 DEF'T'S EXHIBIT 6.

No. [Vignette.] 224,559.

The United States of America to all to whom these presents shall come:

Whereas Gustav Schilling and Simon Florsheim, of Chicago, Illinois, have presented to the Commissioner of Patents a petition praying for the grant of letters patent for an alleged new and useful improvement in pantaloon garments, a description of which invention is contained in the specification of which a copy is hereunto annexed and made a part hereof, and have complied with the various requirements of law in such cases made and provided; and

Whereas, upon due examination made, the said claimants are adjudged to be justly entitled to a patent under the law:

Now, therefore, these letters patent are to grant unto the said Gustav Schilling and Simon Florsheim, their heirs or assigns, for the term of seventeen years from the seventeenth day of February, one thousand eight hundred and eighty, the exclusive right to make, use, and vend the said invention throughout the United States and the territories thereof.

In testimony whereof I have hereunto set my hand and caused the seal of the Patent Office to be affixed, at the city of Washington, this seventeenth day of February, in the year of our Lord one thousand eight hundred and eighty, and of the Independence of the United States of America the one hundred and fourth.

Seal Patent Office, United States of America.

A. BELL,
Acting Secretary of the Interior.

Countersigned:
H. E. PAINE,
Commissioner of Patents.

(Here follows diagram marked p. 579.)

580 UNITED STATES PATENT OFFICE.

GUSTAV SCHILLING and SIMON FLORSHEIM, of Chicago, Illinois.

Pantaloon-Garment.

Specification forming part of Letters Patent No. 224,559, dated February 17, 1880; application filed March 4, 1879.

To all whom it may concern:

Be it known that we, Gustav Schilling and Simon Florsheim, both of Chicago, in the county of Cook and State of Illinois, have invented

certain new and useful improvements in pantaloon garments; and we do hereby declare the following to be a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form part of this specification.

Our invention consists in pantaloons, drawers, or overalls, as a new article of manufacture, provided with elastic straps at the sides, such straps composed of a series of spiral springs held in puckered tubes between two layers of material and arranged lengthwise of the waistband and supported by intermediate loops; and also in pantaloons, drawers, or overalls, as a new article of manufacture, having a triangular gore at the back of the waistband composed of a series of spiral springs held in puckered tubes and arranged in a close group at the top, followed by puckered spaces separated by two spiral springs, all as more specifically hereinafter described.

In the drawings, figure 1 represents a rear view of the body portion of an overall. Fig. 2 represents a side view of the same; and Fig. 3, an enlarged sectional view of the elastic gore, showing its manner of construction.

Like letters in the several figures of the drawings indicate like parts.

A designates the body portion of a pair of overalls, and *a* the waistband to the same.

C is an elastic gore inserted in the rear upper of the garment, and D D are elastic straps secured with their ends upon the waistband at the sides of the overalls, whereby the support of the garments is brought upon the hips, and the loose portion of the waistband intermediate of the strap-ends, for the purpose of preventing its sagging down, has two loops, E, attached, which inclose and by which it is suspended on the straps.

The gore C as well as the straps D are composed each of two flaps, *c c*, of thin leather or of cloth, which may be of a corresponding color with the fabric of the pantaloons. These flaps are cut about twice the length the gore or strap is to be when finished, and are united by longitudinal parallel seams of stitching, so as to form small tubes between two such seams, into each of which is inserted a small coil-spring, *d*. These springs *d* we make of very fine brass wire, which we coil upon a small mandrel, so that the spirals are successively in close contact with each other. The leather or fabric tubes are contracted over these springs, so as to form a multitude of small wrinkles equally distributed over the whole length of said springs, and the ends of the latter we secure in the ends of the tubes to the fabric.

For the gore we arrange the springs *d* in series of two, three, or four, with a blank space between each two series, and in accordance with the required elastic resistance necessary for insuring a close yet comfortable fit for the pantaloons, and with the lengths of the springs proportional to the varying width of the gore.

For the side straps, D, we arrange about four such springs side by side, and we attach the ends of such straps upon the waistband *a*, and cover said ends by small patches of leather or fabric, and to the

waistband, at equal distance between the ends of and over the straps D, we secure two leather or fabric loops, E, which will sustain the otherwise loose portion of the waistband.

Such springs, interlaid between leather or cloth, which will conceal and protect the same, and will prevent their being stretched beyond the length of the covering material, make a much more durable elastic strap or gore than those made of rubber shirrs interwoven with or covered by the threads of the fabric, which are easily influenced by the weather, and become brittle with age, besides the disagreeableness of rubber where it comes in contact with the human skin.

A pair of pants arranged with our elastic gore and straps in the manner described will give an easy and comfortable fit to the human body and limbs, allowing the same to yield to every movement without losing their original shape.

Although it may be desirable to apply both the gore and straps to pantaloon-garments, yet one or the other alone may be
581 & 582 sufficient to bring about the desired good result, and therefore we do not wish to be restricted to their combined application.

The straps may be detachably secured by buttons or buckles, so as to enable the same to taken off while the overalls, pants, or drawers are sent to the laundry for cleansing or washing, and such elastic straps will be applied to good advantage also to the vest in place of the rear latchets and buckle.

We do not claim in this application the invention of spirally-coiled wire springs held in puckered tubes between two layers of material; neither do we claim the application to pantaloons, overalls, or drawers of elastic gore pieces or straps; but as we have not found described and do not know of such garments provided with straps or with gores constructed, arranged, and applied as described in our specification,

We claim as new and of our own invention—

1. As a new article of manufacture, pantaloons, drawers, or overalls provided at the sides with elastic straps D D, composed of a series of spiral wire springs held in puckered tubes between two layers of material arranged lengthwise of the waistband and supported by intermediate loops, E E, substantially as and for the purposes set forth.

2. As a new article of manufacture, pantaloons, drawers, or overalls provided with a triangular gore, C, composed of a series of spiral wire springs held in puckered tubes and arranged in a close group at the top, followed by puckered spaces separated by two spiral wire springs, substantially as and for the purposes set forth.

GUSTAV SCHILLING.
SIMON FLORSHEIM.

Witnesses:
EMIL H. FROMMANN.
ERNST JEBSEN.

583 English, A. D. 1815. No. 10. J. C. [Jno. C. MacGregor, notarial seal, Cook Co., Ills.]

DEPARTMENT OF THE INTERIOR.

[Vignette.]

UNITED STATES PATENT OFFICE.

To all persons to whom these presents shall come, Greeting:

This is to certify that the annexed is a true copy from the bound volumes of this office of the specification and drawing in the matter of the English letters patent granted John Mills March 14, 1815, number 3894, for improvement in elastic stays.

In testimony whereof I, V. D. Stockbridge, acting Commissioner of Patents, have caused the seal of the Patent Office to be affixed this fifth day of December, in the year of our Lord one thousand eight hundred and eighty-two, and of the Independence of the United States the one hundred and eleventh.

Seal Patent Office, United States of America.

V. D. STOCKBRIDGE,
Acting Commissioner.

584 A. D. 1815. No. 3894.

Elastic Stays.

Mills' specification.

To all to whom these presents shall come I, John Mills, of Holywell street and Saint Clement's Church-yard, Strand, in the county of Middlesex, stay and corset maker, send greeting:

Whereas His Most Excellent Majesty King George the Third did, by his letters patent, under the great seal of the United Kingdom of Great Britain and Ireland, bearing date, at Westminster, the fourteenth day of March, in the fifty-fifth year of his reign, give and grant unto me, the said John Mills, my ex'ors, adm'ors, and assigns, his especial licence, full power, sole privilege, and authority that I, the said John Mills, my exo'rs, adm'ors, and assigns, should and lawfully might, during the term of years therein mentioned, make, use, exercise, and vend with England, Wales, and the town of Berwick-upon-Tweed my invention of "improved elastic stays for women and children, and also to give relief to women
585 in a state of pregnancy;" in which said letters patent there is contained a proviso that if I, the said John Mills, shall not particularly describe and ascertain the nature of my said invention and in what manner the same is to be performed, by an instrument in writing under my hand and seal, and cause the same to be enrolled in His Majesty's high court of chancery within two calendar months next and immediately after the date of the said letters patent, that then the said letters patent and all liberties and advantages whatsoever thereby granted shall utterly cease, determine, and

become void, as in and by the same, relation being thereunto had, may more fully and at large appear:

Now know ye that in compliance with the said proviso I, the said John Mills, do hereby declare that the nature of my said invention and the manner in which it is to be performed are particularly described and ascertained in manner following (that is to say):

My improvement of elastic stays for women and children,
586 and also to give relief to women in a state of pregnancy, consists of the introduction of a flexable or elastic portion in those parts of the stays best calculated to give relief to the wearer, and at the same time preserving that stability and support usually given to the body by the common adoption of whalebone, steel, and other hard or flexible materials. The improved stays are of different constructions, as seen in the drawings hereunto annexed, and may be principally reduced into three kinds (vist.). stays of the first construction, figure 1, calculated for young growing persons or for adults; of the second construction, figure two, calculated for women in a state of pregnancy; and of the third construction, figure 3, for women in a more advanced state of pregnancy.

Figure 1 is a representation of a stay of the first construction, composed of the same materials as common stays, with the introduction of an elastic or expansive portion or slip down the middle, which will dilate or expand by a more than ordinary pressure or force being exerted, as in the case of breathing or exercise of the arms. This flexible portion is composed of springs, either of brass, copper,
587 or iron wire, or of any other matter or thing capable of producing sufficient elasticity; but that which I recommend is small brass wire worm springs, which extend by a small degree of force. These I place close together in runners or spaces stitched in between two pieces or laying of silk, satin, or other fit material, puckered or quilted loosely to give room for expansion, the ends of the springs and their covering of silk, satin, or other matter on them sewed or otherwise fastened to and between the two half pieces of the stay previously made of the usual materials, such as jean or other cotton, linen, silk, woollen, or leather, with the proper busks or necessary portions of steel, whalebone, or other substance commonly adopted, calculated to distend the stay and brace and support the body. The busk may be varied in substance, width, or direction, according to the will or necessity of the wearer. The stays when worn will be found to produce all the necessary firmness and bracing to the body, at the same time admitting of a smaller degree of extension in the front in order to relieve the breathing
588 and enable the chest to expand itself.

The drawing, figure 2, exhibits stays of the second construction, calculated for women in a state of pregnancy. These stays have a large portion of the front rendered elastic in order to admit of and give ease to the naturally expanded state of the belly in the time of gestation. This elastic portion is composed of dilating springs, as before expressed, either of copper, brass, iron, or other matter, but brass wire worm springs I prefer, covered as before described. In this elastic portion the springs need not be placed so

close together as in figure 1, and it will be found necessary to place stronger springs at the top and bottom than in the middle, the latter being intended to yield very readily, the former to help, support, and brace the body, with busks, of a slighter kind than usually adopted in common stays, placed down the stay, in order to distend it, as seen in the drawings. On the sides of the stays are openings, with lacings, calculated to enlarge the stays, if required, with linings to prevent the wearer receiving cold through the opening.

589 The third construction represented in the drawing, figure 3, is intended for women in a still further advanced state of pregnancy, and consists, in addition to the last described, of expansive or elastic portions placed in the sides, as seen in the drawing, of the same materials (vist.), dilating or elastic springs, as the front elastic part. There are likewise buttons and loops crossing these portions to prevent too great a degree of expansion when not required. These stays have also an opening slip in the side, with lacings to allow of being enlarged, and a flap lining or covering under the same to prevent cold from passing to the wearer when the lacings are open.

The manufacture of these patent stays is not confined to form or shape, neither to the use of any particular article or material of which to make the same, but adopt such as custom or propriety dictate, adhering to the principle of inserting elastic portions into the stays of such forms, agreeable to the foregoing principle, as

590 under all circumstances may be found most eligible and best calculated to afford that relief for which the patent is granted.

In witness whereof I have hereunto set my hand and seal this thirteenth day of May, in the year of our Lord one thousand eight hundred and fifteen.

JOHN MILLS. [L. S.]

Ex'd: H. M. H. E. A. M.

(Here follows diagram marked page 591.)

591½ [Endorsed:] United States circuit court, northern district of Illinois. In equity. Simon Florsheim and Thos. H. Ball *vs.* Gustav Schilling. "Defendant's Exhibit No. 10." [Jno. C. MacGregor, notarial seal, Cook Co., Ills.] Jno. C. MacGregor, notary public. Filed Feb. 2, 1883. W. H. Bradley, clerk.

592 Afterwards, to wit, on the twenty-third day of June, 1886, there was filed in said clerk's office an appeal bond in said entitled cause; which said appeal bond is in words and figures following, to wit:

Appeal Bond.

United States Circuit Court, Northern District of Illinois.

SIMON FLORSHEIM and THOMAS H. BALL
vs.
GUSTAV SCHILLING. } In Equity.

Know all men by these presents that we, Simon Florsheim, Thomas H. Ball, and Sigmund Florsheim, all of the city of Chicago, in the county of Cook and State of Illinois, are held and firmly bound unto Gustav Schilling in the penal sum of one thousand (1,000) dollars, to be paid to the said Gustav Schilling, his heirs, executors, administrators, and assigns; for which said payment, well and truly to be made, we bind ourselves and each of us, jointly and severally, and our and each of our heirs, executors, administrators, firmly by these presents.

Sealed with our seals and dated the fifteenth day of June, A. D. 1886.

SIMON FLORSHEIM.
THOMAS H. BALL.
SIEGMUND FLORSHEIM.

593 Whereas the said the above-bound Simon Florsheim and Thomas H. Ball have taken an appeal in [to] the Supreme Court of the United States to reverse a decree rendered by the circuit court of the United States within and for the northern district of Illinois in the hereinbefore-entitled action:

Now, therefore, the consideration of this obligation is such that if the said Simon Florsheim and Thomas H. Ball shall prosecute their appeal to effect and shall pay all costs and damages awarded against them if they should fail to succeed in their said appeal, then this obligation shall be void; otherwise to remain in full force and effect.

SIMON FLORSHEIM.
THOMAS H. BALL.
SIEGMUND FLORSHEIM.

Approved June 22, 1886.

W. Q. GRESHAM.

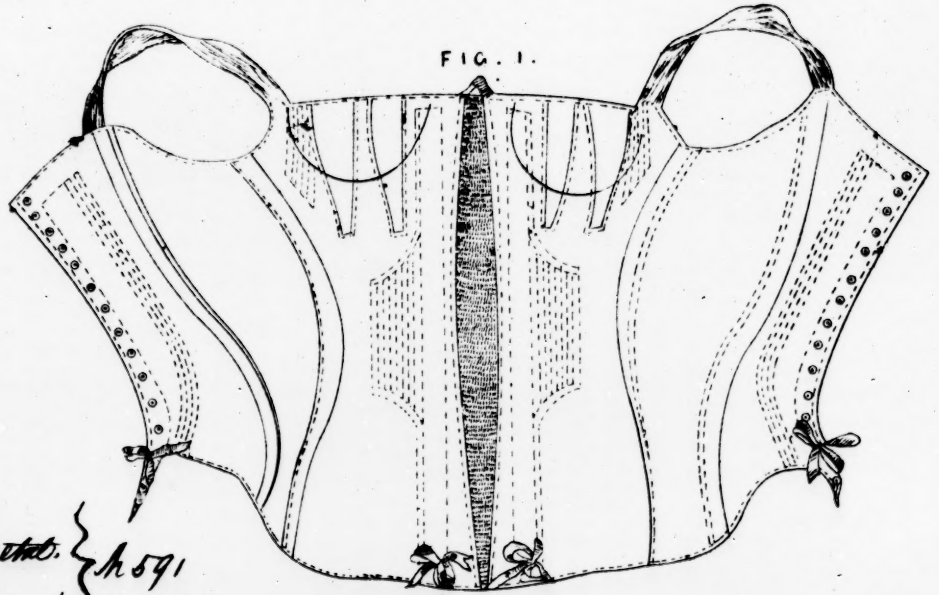
Endorsed: Filed June 23, 1886. Wm. H. Bradley, clerk.

594 NORTHERN DISTRICT OF ILLINOIS, *ss:*

I, William H. Bradley, clerk of the circuit court of the United States for the northern district of Illinois, do hereby certify the above and foregoing to be a true, correct, & complete transcript of the record of all the proceedings had in said court in the cause wherein Simon Florsheim and Thomas H. Ball are the complainants and Gustav Schilling is the defendant, as the same appear from the files and records of said court now remaining in my custody and control.

A.D. 1815. MARCH 14. Nº 3894.
MILLS' SPECIFICATION.

FIG. 1.



No. 27
Florsheim etc.
A Chilling
} Ch 591

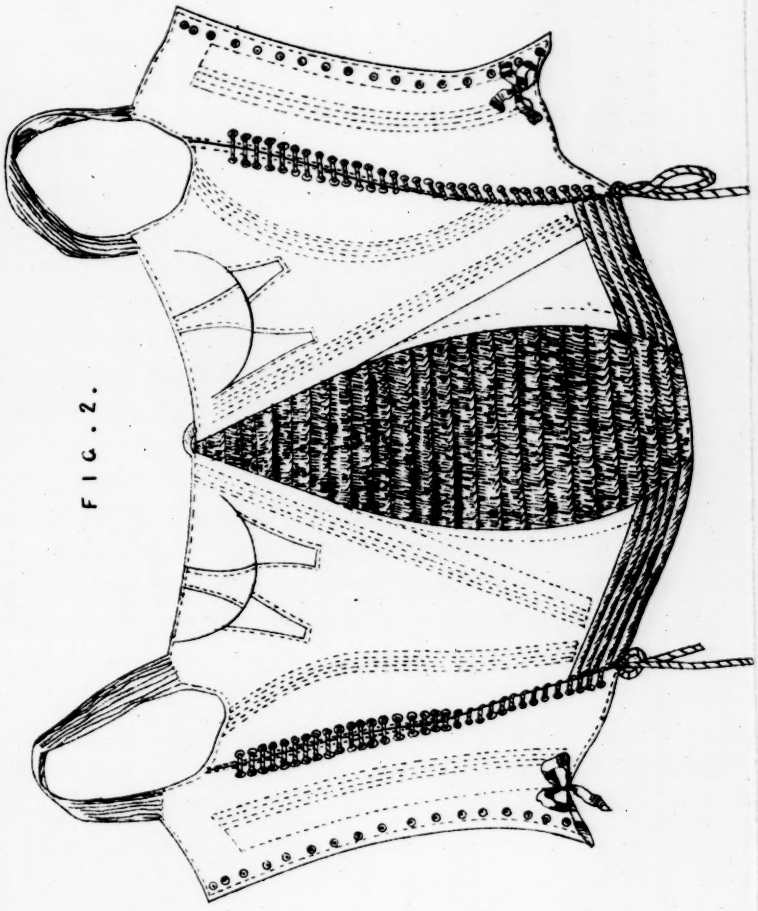
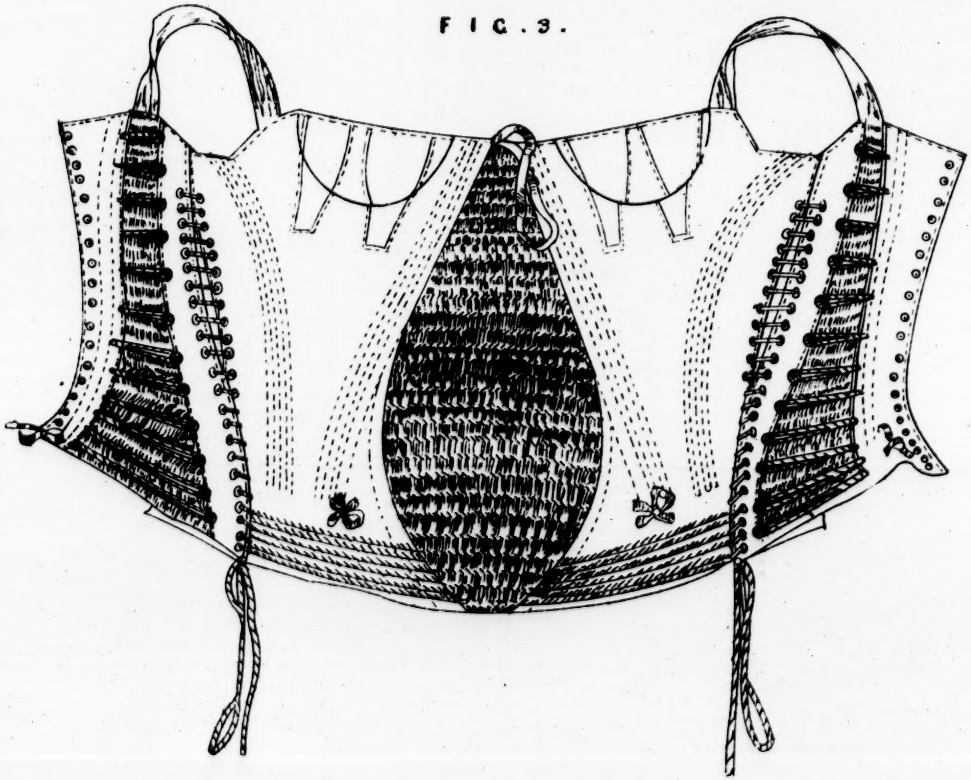


FIG. 2.

FIG. 3.



Seal of Circuit Court U. S., Northern Dist. Illinois 1855.

In testimony whereof I have hereunto set my hand and affixed the seal of said court, at my office, in Chicago, in said district, this twelfth day of October, 1886.

WM. H. BRADLEY, *Clerk.*

Endorsed on cover: N. Illinois C. C. U. S. No. 217. Simon Florsheim and Thomas H. Ball, appellants, *vs.* Gustav Schilling. Filed October 18, 1886.

Supreme Court of the United States,

OCTOBER TERM, A. D. 1889.

NO. 217.

SIMON FLORSHEIM and THOS. H. BALL, *Appellants*,
vs.
GUSTAV SCHILLING, *Appellee*.
} *Equity.*

Appeal from the Circuit Court for the Northern District of Illinois.

Brief and Argument for Appellants.

COBURN & THACHER,
Of Counsel.

W. S. ELLIS & SON, LEGAL PRINTERS, 164 AND 166 WASHINGTON ST.

Supreme Court of the United States,

OCTOBER TERM, A. D. 1889.

SIMON FLORSHEIM and THOS. H. BALL, *Appellants,*
vs.
GUSTAV SCHILLING, *Appellee.*
No. 217.

Appeal from the Circuit Court of the United States for the Northern District of Illinois.

BRIEF AND ARGUMENT ON BEHALF OF APPELLANTS.

This action was on a bill in equity for the infringement of letters patent of the United States No. 238,100, for a Corset invented by Simon Florsheim, and issued February 22, 1881, to Simon Florsheim and Thomas H. Ball; also letters patent No. 238,101, for Elastic Gore, Gussets, etc., for wearing apparel, invented by Simon Florsheim, and issued February 22, 1881, to Simon Florsheim, and Thomas H. Ball.

The bill was in the usual form, praying for a recovery of profits and damages and an injunction; there was a large amount of testimony taken in the case. The final hearing was had, and Judge Blodgett sitting as Circuit Judge in the northern district of Illinois, entered a decree, (see page 32, printed transcript of record), in which he found that the defendant did not infringe as complained of in the bill herein, and that said complainants' patents are void for want of novelty.

An appeal was also allowed in said decree; an opinion was also given by Judge Blodgett. The court afterwards modified that decree, so far as the third and fourth claims of patent No. 238,101 are concerned. This in effect left the finding that patent No. 238,100 is void for want of novelty, and that claims 1 and 2 of patent No. 238,101 are void, but claims 3 and 4 of patent No. 238,101 are valid. The court rendered an opinion (see page 26, Transcript of Record) which was reported in 26 Fed. Rep., 256.

EXCEPTIONS.

First. The court erred in entering a decree, finding non-infringement, because it is stated in the opinion that it was unnecessary to consider the testimony as to question of infringement under the view taken by the court of the question of novelty.

Second. The court erred in finding that there was no novelty in complainants' inventions, because one feature was found in one old patent and another feature in another; and still another feature in a third patent, all of which features in combination in complainants' patent constituted the subject matter of the claims.

Third. The court erred in finding that the description in the Miller English patent of 1866, was sufficiently clear to enable a person to construct from it an elastic gusset or gore like the one shown and patented.

History of the Case.

Prior to 1879 Gustav Schilling, the defendant, was making gloves in Chicago and invented an improvement in gloves for which he obtained a patent, (see page 329, Transcript of Record). Simon Florsheim, one of the complainants, was a wholesale merchant, and became interested with Schilling in this patent. Afterwards Schilling obtained a patent for an elastic gore for gaiters, (see page 331, Transcript of Record); this patent was dated April 22, 1879. On November 25, 1879, Schilling and Florsheim obtained a patent for a joint invention for an improvement in corsets, (see page 334, Transcript of Record); this patent was dated Nov. 25, 1879. Afterwards Schilling and Florsheim obtained a patent for a joint invention for pantaloon garments (see page 339, Transcript of Record): this patent is dated February 17, 1880.

All of these patents contain an application of an elastic gusset or gore, consisting of a double thickness of puckered cloth, covering coiled wire springs. The coiled wire springs were cut off at the edges of the gusset or gore, and extended to the edge of the gore, so that each length of coiled wire extended the width of the gusset or gore, through a tube formed in the cloth coverings, the two pieces of cloth being sewed together between the coiled springs. When Schilling and Florsheim visited Mr. Lotz, the patent solicitor, to make applica-

tion for a joint invention of Schilling and Florsheim for the corset and overalls patents above referred to, Mr. Florsheim stated in the presence of Mr. Schilling that he had made an improvement in the elastic gusset, which was not to be described or claimed in these joint applications, as it was his sole invention. (See p. 172, Transcript of Record.)

Mr. Schilling acknowledged to Mr. Lotz at the same time that it was a good idea of Mr. Florsheim's. Immediately following, to-wit: on July 16th, 1880, Mr. Florsheim made application for a patent for his elastic gore invention, and on Aug. 12, 1880, he made the application for his corset invention, both of which issued Feb. 22, 1881, and are the patents on which this suit is brought, viz.: Patent No. 238,100 and patent No. 238,101, (see printed copies pages 182 and 185, Transcript of Record.)

Mr. Florsheim assigned one half interest in these applications for patents to Thomas H. Ball, and the patents issued to Florsheim & Ball, the complainants in this cause. Florsheim & Ball immediately commenced the manufacture under and in accordance with these patents as a regular business, first with five employees. They submitted the corset to leading physicians of Chicago and obtained certificates from them, namely: Dr. W. H. Byford, James Nevins Hyde, A. J. Baxter and A. Reeves Jackson, to the effect that if ladies would wear corsets this was the best.

The points of superiority consisted chiefly in the fact that the elastic gores or gussets in the corset were placed in the sides of the corset and extended from under the arm to the bottom of the corset, its entire length, so that the front of the corset would expand from the back of

the corset when the lady stooped, and also admit of free respiration, also that the springs in the elastic gore, being arranged in groups, admitted of the adaptability of the corset to having a greater or less pressure at different parts of the corset, which was a great advantage, and further, the fact that the elasticity was obtained by the use of small coiled wire springs gave ventilation to the corset and obviated the serious objection experienced in the use of rubber in elastic gores in corsets, both on account of the odor and retention of moisture passing from the system.

The manufacturer of the corset found great advantages in manufacturing the corsets arising from the fact that the coiled wire spring did not extend the entire width of the gusset and was continuous from the bottom of the gusset to the top, requiring only two fastenings at the ends, instead of being cut off and fastened at each edge of the gusset each time that it crossed the gusset, as had always been previously done when made of coiled wire springs.

This method of construction also gave the elastic gore or gusset a plain margin on each edge of the gusset which did not contain the coiled wire spring, and which enabled its ready attachment to the corset without sewing through the coiled wire springs and making a coarse, bungling seam as in all previous cases where coiled wire springs had been used.

The method of making this gusset consisted in taking two pieces of cloth, each of the size of the gusset which it was desired to make, placing one upon the other and sewing them together partly across them, back and forth, not sewing to the edges of the piece of cloth, fastening the threads at the end of each row of stitching so

as not to ravel. These rows of stitches were near together, making a series of tubes between them and the two thicknesses of cloth through which the coiled wire was drawn or threaded back and forth the entire length of the gusset.

The gusset, after it was sewed with these rows of stitches partly across it, received in each of its tubes a steel rod and was then placed in a machine which crimped or shirred the cloth by sliding the edges of the gusset toward each other on the steel rods. The operator would then remove one of the rods and thread in the coiled wire spring through the tube from which the rod was removed and then remove the next rod, threading the coiled wire spring back in the opposite direction through the next tube, and so on until the spring was drawn back and forth the entire length of the gusset.

Mr. Ball invented and patented machinery for making the elastic gussets with coiled wire springs with facility, which, however, formed no part of this controversy further than to show that this was an entirely new corset, there being no machinery in existence adapted to its manufacture.

The testimony shows that this corset, made under these patents, and which was known as "Ball's Health Preserving Corset," met with such ready sale that at the time of taking the testimony in this cause, about July, 1882, these appellants had about three hundred operatives manufacturing their corsets, and had invested capital of about $60,000.

It was stated that at the time of the trial below, their factory facilities had increased to six hundred operatives.

In the fall of 1880, Mr. Schilling made an applica-

tion for a patent, which had a coiled wire elastic section laced into the back of the corset, but did not claim to have made any of the inventions involved in the patents declared in on this cause. It will be observed that this application for a patent was made after the Florsheim patents issued, but before they had gone into extensive use, but on Nov. 12, 1881, after the "Ball's Health Preserving Corset" had become widely known with a large business established in its manufacture, this defendant Schilling made an application for a patent, claiming to be the inventor of the inventions claimed in the Florsheim patent No. 238,100.

There was an interference declared between this last application of Schilling and the Florsheim patent No. 238,100, and Schilling immediately commenced the manufacture of a corset identically like this "Ball's Health Preserving Corset." The main defense in the court below was that Schilling was the inventor of the inventions claimed in the Florsheim corset patent and the testimony taken in the interference suit was stipulated into this case (see page 193). After the testimony was taken in the interference cause, the interference was dissolved by the commissioner of patents and Schilling failed to obtain a patent.

The circulars of complainant and defendant, showing the similarity of names adopted by the defendant for his corset to that of the complainant's corset are printed p. 192 Transcript of Record.

The court, in its decree, dismissing the bill, found no infringement. This was clearly an error because there is no evidence but that the defendant's corset was identically like the complainant's corset, and both made exactly like the one shown in the Florsheim patent No.

238,100. The opinion of the court below is that the Florsheim patent is void for want of novelty, thereby virtually deciding that Mr. Florsheim was the inventor instead of Mr. Schilling, but that the same invention was shown in prior patents.

This leads us to a discussion of the inventions patented to Florsheim in the patents in controversy.

COMPLAINANTS' PATENTS.

The complainants' patent exhibit No. 1, a copy of the specifications and drawings of which are printed on page 182, printed Transcript of Record, is for a corset. The following is a copy of drawing of said patent.

(Model.)

S. FLORSHEIM.

Corset.

No. 238,100. Patented Feb. 22, 1881.

Fig. 1.

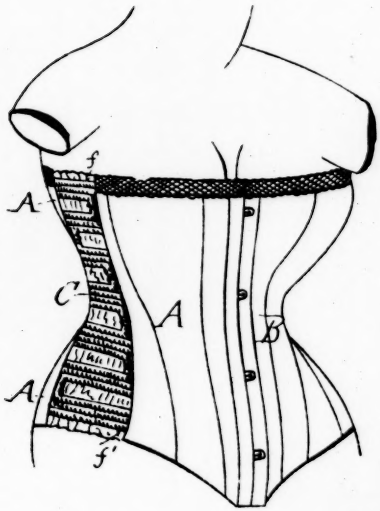


Fig. 2.

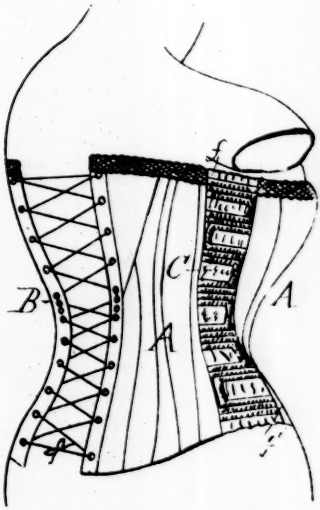


Fig. 3.

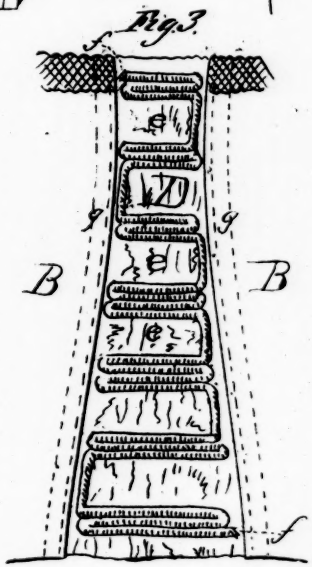


Fig. 4.

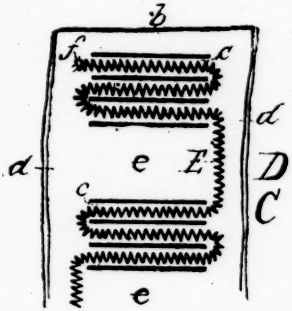
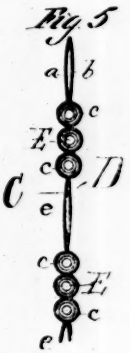


Fig. 5.



Witnesses:
L. B. Townsend
F. W. Kasehagen.

Inventor:
Simon Florsheim.
per Lotty & Dyer
Attorneys

This patent is for the special construction described. Florsheim was not the first to use coiled wire in an elastic section or gore, in wearing apparel. He says in his specifications that his corset is an improvement upon the corset granted to himself and Gustav Schilling in that it allows of an easier and more equal expansion of the entire corset, will adapt itself more perfectly to the form of the wearer.

The improved corset also includes a better and cheaper method of securing the springs and forming the groups, whereby the elastic sections can be stitched in place on a machine without interfering with the springs, and the elasticity of the springs can not be injured by the stitching.

"My invention consists in the peculiar means for accomplishing this object, as fully hereinafter explained and pointed out by the claims." The means described consists of placing the elastic gores or sections in the sides of the corset extending its entire length, and placing the coiled wire in said sections in groups. The springs extend throughout the entire length of the elastic section. The location of the gussets or elastic section cause an easy and more equal expansion the entire length of the corset, and cause a more ready expansion in some parts of the corset than others, on account of the grouping of the spring.

Extending the spring back and forth through the entire length of the corset, makes a better and cheaper method of securing the springs and forming groups, and having the tubes containing the coiled spring extend only part way across the elastic section enable the stitching of the section "in place on the machine without interfering with the spring." The patentee also states in his speci-

fication that the covered metal springs possess great advantages over rubber cloth, from the fact that the rubber soon loses its elasticity at the point subjected to the most strain, and also from the fact that the rubber cloth has equal stiffness throughout, and cannot be regulated to have different degrees of elasticity at different points, and does not possess that independent elasticity obtained by the groups, "and that the metal springs do not heat and bind the flesh as rubber cloth does."

The inventor places great stress upon the fact that the springs are placed in groups, "since, if placed contiguous throughout the elastic sections, the corset would be much too heavy and expensive, and such sections would be too stiff at some points and not stiff enough at others."

The following are the claims of said patent:

1st. In a corset an elastic section composed of two thicknesses of cloth and other material, *a b*, having tubes *c*, in combination with the spiral metal springs E, inclosed by such tubes, and arranged in groups to regulate the elasticity of the section, such groups being all composed of a single continuous spring passed back and forth through the tubes and secured at its ends, substantially as described and shown.

2nd. An elastic section or gore composed of material having tubes extending only part way across the same, and plain margins outside of said tubes, and spiral metal springs arranged in groups in such tubes, the springs of the several tubes being made continuous, substantially as described.

3rd. A corset laced at the back and having the elastic side sections C D, extending from under the arms down over the hips, each of such sections being composed

of material having puckered tubes extending part way across the same, and plain margins outside of said tubes, and spiral metal springs arranged in groups in such tubes, and made continuous, substantially as described and shown.

The first claim consists of the following elements:

1.—Two thicknesses of cloth, *a b*. 2.—Tubes, *c*. 3.—Spiral metal springs, *c*, enclosed by such tubes and arranged in groups, such springs all being composed of a single continuous spring, passing back and forth through the tubes and secured at its ends.

It is apparent that this claim should be construed with limitations as to the length of the tubes, *c*, relative to the width of the elastic section, and to the special arrangement of the tubes, or the spiral metal spring in the tubes in groups, to regulate the elasticity of the section, and also to a single continuous spring passing back and forth through the tubes.

We contend that this claim would not embrace an elastic section made of rubber nor of any other kind of springs, unless the springs were arranged in groups, in tubes, extending only partially across the elastic section and continuously from end to end of the section.

The second claim is composed of the following elements:

1. Tubes extending only part of the way across the elastic sections.

2. Plain margins outside of said tubes.

3. Spiral metal springs arranged in groups, in the tubes, the spiral metal spring being continuous from group to group.

The third claim is composed of the following elements:

1. The elastic sections, *c* and *d*, extending from under the arms down over the hips.

2. Sections must contain, *a*, tubes extending part way across the same; *b*, plain margins outside of said tubes; *c*, spiral metal springs arranged in groups in said tubes, and made continuous.

The location of this elastic section in the sides of the corset and extending from the top to the bottom of the corset made it important that the springs should be grouped so as to give different degrees of elasticity at different places in the corset, when the entire front of the corset would expand as the wearer breathed or stooped. The greatest tension is given to the middle of the corset as specified in the specification.

The patentee limited his invention in his specification and claims to the corset shown and described, with elastic sections made specially in the manner specified, and it is apparent that the special construction of the elastic sections described are specially adapted to their location in the sides of the corset and produce desirable results, because they are placed in the sides of the corset, and extend throughout the entire length of the corset "from under the arms down over the hips."

All of these elements in the construction of the elastic sections and their special location in the corset combined, made a corset which immediately became very popular, and went into such extensive use that, in a short time, six hundred operatives were employed in its manufacture.

Infringement.

The infringement is unquestioned, because the defendant made a corset exactly like the complainant's corset, in all respects. He gave it the same name and

sold it as the same corset, claiming to be the inventor of it instead of Mr. Florsheim. The question of priority of invention, having been determined in the Patent Office, in favor of Florsheim, by the Commissioner of Patents, dismissing the interference, and by the court below, it is not necessary to discuss here that question. It is referred to here only for the purpose of calling the attention of the court to the fact that the defendant did not deny that he was making the same corset that was shown in the complainant's patent, but made an affidavit that it was new and novel, and not before in use, to his knowledge.

State of the Art.

The court below first considers the English patent of Jno. Mills, of March 14, 1815, in considering the question of patentable novelty of the Florsheim invention, and this appears to be the only patent discussed by the court which was filed with the testimony, and is printed in the Transcript of Record (see p. 342 Transcript of Record).

The corset described in the Mills patent, sustains no important relation to this case excepting that it states that "this flexible portion is composed of springs, either of brass, copper or iron wire, or of any other matter or thing capable of producing elasticity; but that which I recommend is small brass wire worm springs, which extend by a small degree of force. These I place close together in runners or spaces, stitched in between two pieces or laying of silk, satin or other fit material, puckered or quilted loosely, to give room for expansion, the ends of the springs and their covering of silk, satin or other matter on them sewed, or otherwise fastened to and between

the two half pieces of the stay, previously made of the usual materials, such as jean or other cotton, etc."

The elastic section in this Mills patent contains preferably coiled wire springs, but their ends are fastened between the cloth, forming the corset, in the manner which is described in the Florsheim patent as being old and objectionable, and is of the construction which he obviates by his improvement. It does not have a single element which constitutes Florsheim's invention.

The elastic sections shown in Figure 3 are not under the arms, but extend from one end of the shoulder strap down the back of the corset.

The Mills patent does not contain the spiral metal springs arranged in groups, the springs being composed of a single continuous spring, passed back and forth through the tubes, nor does it have any plain margins on the sides of the sections, nor does it have elastic sections extending from under the arms, down over the hips. The court below simply found that it had elastic sections, "the elasticity being secured by spiral springs transversely set into the material of which the section is made, and this section extending from the top to the bottom of the corset, either at the back or front, or both."

This does not include a single novel or new element of the Florsheim invention, because the same kind of elastic coiled wire spring sections were old as above specified by the court, was stated in the Florsheim patent to be old, and none of the advantages secured by placing the sections under the arms could be secured by placing them either in front or back of the corset.

The court below discusses, quite at length, the English patent to Miller, of Dec. 31, 1866, which is for elastic gussets. This patent describes the construction of an

elastic gusset, made of vulcanized rubber cord, and the court was evidently of the opinion that this patent described the same kind of elastic gore that was described in the Florsheim patent.

There is no drawing attached to this Miller patent, and the following is the description which the court below quoted, describing the manner of constructing the gusset: "We first cut the material, leather, silk, cotton or any other woven fabric and the lining, to the size required of the gusset, when it is finished, and for leaving the required margin.

"We then turn over the top edge and baste or tack it down to the lining. We then commence to stitch with a sewing machine, a series of rows in parallel lines, transversely across the gusset, the stitching passing through the two materials, commencing at the top, and so on from row to row until the whole of the gusset is stitched. The distance between the rows of stitching will depend on the thickness of the india rubber thread to be inserted.

"We then insert, with the bodkin or needle, the thread or strand of india rubber, which is in one length. We commence at the top cavity to insert the india rubber thread or cord, and follow back in the next row or cavity, causing it to return parallel to itself and so on, the same from row to row, until the whole of the cavities are filled with india rubber. We then pull back the margin that is left as large as required, and tack it down with an ordinary needle, and the gusset is ready for use."

The description, above quoted, does not describe a gusset like the gusset described in the Florsheim patent. Miller says he first cuts the fabric and lining of the desired size, then turns over the top edge and bastes or tacks it down to the lining, after which he stitches with

a sewing machine, a series of rows in parallel lines, transversely across the gusset.

He then takes a needle or bodkin and pulls his rubber cord back and forth between these rows of stitches, until all of the cavities are filled with india rubber. He then pulls back the margin that is left. The margin referred to is the margin that he has turned over at the top of the gusset; there is no other margin because he says that he sews with a sewing machine, a series of rows across the gusset.

Florsheim, in his patent, says that the pieces of cloth from which the sections are formed, are considerably wider than the section when completed. "The tubes c are located in the center of the sections, and do not extend to the edges of the same, as seen in Fig. 4, so that margins d will be left at the ends of the tubes, which margins are lapped with the adjoining sections of the corset and stitched thereto." "The springs are arranged in groups, as shown, with puckered spaces and of cloth, between such groups. The number of springs composing the groups will vary according to location so as to give the requisite stiffness and elasticity."

No one would make the gusset described in the Florsheim patent from the description of the English Miller patent. Miller provides only for a margin at the ends of the gussets, he does not say that he sews only part way across the gusset and not to the edges, but sews across. With the direction to sew across a gusset parallel rows of stitches, no one would think of not commencing at the edge, and sewing across to the opposite edge. With a direction to turn over the top of the gusset, and then, when the rubber cord is threaded in, with a bodkin, across the gusset, to pull back the margin, there

would be no provision for turning back any thing but the turned over end. The inference would clearly be that the margins were at the ends of the gussets, and not at the ends of the tubes, or at the sides of the gusset as in the Florsheim patent.

He nowhere says that he shirrs or puckers the cloth, or specifies where the plain margin, that he provides for is located, only by inference, as above stated, that it would be on the ends of the gusset, and not at the ends of the tubes. If a person had never seen Florsheim's gusset, or obtained directions from the description of the Florsheim patent, he would not find sufficient direction in the language above quoted from the Miller patent to make the Florsheim gusset. This description would clearly fall within the decisions that a prior description must clearly be free from ambiguity and doubt, in order to be sufficient to defeat a patent for want of novelty.

The experts on behalf of complainant in the testimony failed to find this, Miller's descriptions, sufficiently explicit to enable them to make a gusset from it, and also failed to find it sufficient to meet the Florsheim corset patent.

122, U. S. 40, *Eames* vs. *Andrews*.

This court fully discusses and affirms the doctrine laid down in *Seymore* vs. *Osburn*, 11 Wall., 516, *Cohn* vs. *The United States Corset Company*, 93 U. S., 366, and *Dowuton* vs. *Yeager Milling Co.*, 108 U. S., 466. The doctrine is well settled by this court that the old publication or patent must contain such a complete and full description of the thing patented, as to enable one skilled in the art to make the patented thing from it, without reference to the later patent.

The court below did not hold that this patent of itself was sufficient to anticipate the corset patent, but finds that because there was another patent, to-wit, the Van Nostrand patent, which showed elastic sections in the side of a corset, extending from under the arm down over the hip, that one would know how to put the Miller elastic section into the side of a corset.

It is admitted in the opinion that the elastic sections described by Florsheim, and claimed in the Florsheim patent, would be superior to rubber cloth. The court says in the opinion: "With the art of corset making so far developed in the direction of complainant's device, as is shown by the elastic section of Mills and Van Nostrand, and with the Miller section, showing continuous springs and non-elastic margin, it would seem that all complainant did in his corset patent was fully anticipated in the old art. The substitution of wire for rubber makes the Miller gusset in all respects elastic sections such as is shown in complainant's corset, except that the springs are not grouped, and this is not a patentable difference, as the only advantage of the grouping is to make the sections less rigid in some points than at others."

The mistake which the court makes is twofold.

First, the Miller gusset is not sufficiently described to enable one to make a gusset or elastic section like that shown and described in the Florsheim patent.

It is true that Miller states that it has a continuous rubber cord, and a plain margin, but his description is not the same as the description in the Florsheim patent, and is not sufficientiy clear and explicit so that anyone would construct from it a gusset like the Florsheim gusset. It would seem from the description that the plain margins would not be on the ends of the tubes, and

that the tubes would extend entirely across the gusset. The second error consists in the fact that the court finds part of the invention patented by Florsheim in the Mills patent; part of it in the Van Nostrand patent, and another part of it in the Miller patent. It is well settled that where the old elements of a combination claim are combined in one structure, and a superior article, or a cheaper article is produced, the new combination of parts or elements which co-operate to produce the superior results, makes a patentable invention. The superiority of the new article is not disputed in this case.

In 102 U. S., 104, *Parkes* vs. *Booth*, it was held that "the respondent cannot make good the defense in question by proving that a part of the entire invention is found in one prior patent, printed publication, or machine, and another part in another, and so on indefinitely and from the whole or any given number, expect the court to determine the issue of novelty adversely to the complainant." The same doctrine was held in *Bates* vs. *Coe*, 98 U. S., 31, and in *Johnson* vs. *Forty-Second Street, M. & St. N. Av., R. Co.*, 33 Fed. Rep., 449.

This doctrine is applicable to the construction of the complainant's corset, because the different parts of the corset as constructed co-operate in the use of the corset as well as in its manufacture to produce new and useful results, which were never before produced in any single article. The grouping of the springs in an elastic section, placed in a corset under the arms, and extending from the top to the bottom of the corset, as specified in the Florsheim patent, and in the claims, produce a result that they would not produce if placed elsewhere in the corset. There is no pretense that a corset like the Florsheim corset shown and claimed in the complainant's

patent No. 238,100, was ever before shown or described in any prior patent or publication. It should be borne in mind that all of the claims of this patent are limited to the application of these particularly constructed elastic sections.

The complainant's patent No. 238,101 is for an elastic gore or gusset for wearing apparel. The two first claims of this patent are as follows:

1.—An elastic gore, gusset or section for wearing apparel, composed of a covering material having tubes, spiral metal springs inclosed by such tubes and not extending to the edges of the covering material, and inelastic margins outside of the springs, substantially as described, for the purpose set forth.

2.—An elastic gore, gusset or section composed of a covering material having tubes, and spiral metal springs inclosed by such tubes and not extending to the edges of the covering material, and stayed at their ends by such covering material, said covering material being puckered at its center over the springs, and having plain unpuckered margins extending wholly outside of the springs, substantially as described and shown.

If it be true that the English Miller patent, which has no drawing, does not contain a description sufficiently full, clear and explicit to enable a person skilled in the art to make from it a gusset like the gusset described and shown in this Florsheim patent, then these two claims are valid. A test of this can be determined by simply reading the extract from the Miller patent copied in the opinion of the court below, and determining what sort of a structure one would make in following the directions there given. Miller in his description does not describe a method of construction which would produce the same article as that shown and described in this Florsheim patent No. 238,101.

(No Model.)

S. FLORSHEIM.

Elastic Gore, Gusset, &c., for Wearing Apparel.

No. 238,101. Patented Feb. 22, 1881.

Fig. 1

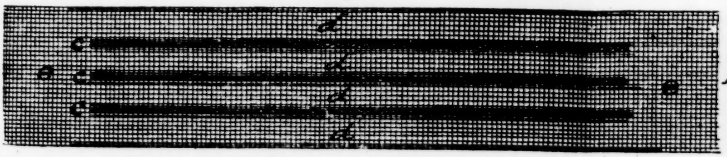


Fig. 2.

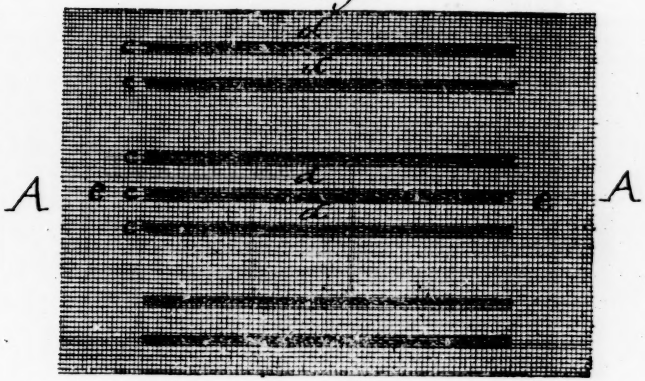


Fig. 3.

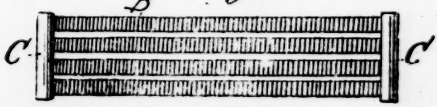


Fig. 4.

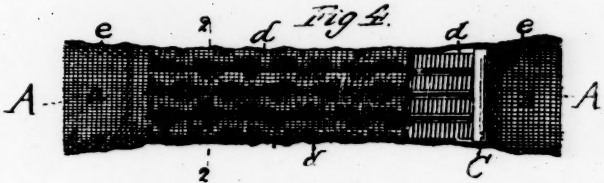
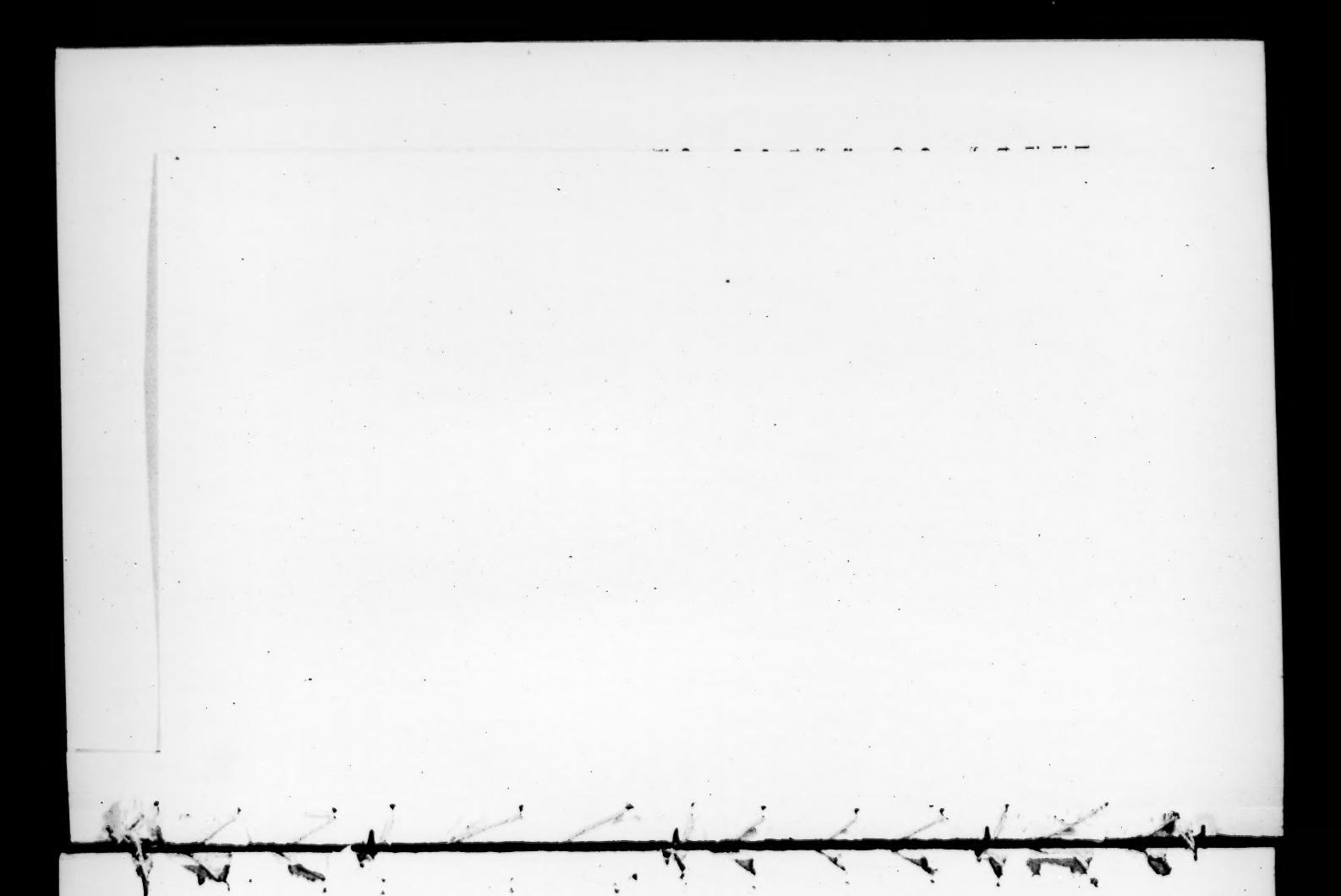


Fig. 5

Fig. 6

Witnesses.
F. B. Townsend
Wm. Rotthoff

Inventor:
Simon Florsheim.
per Lacy & Dyer,



The patentee says, in the specification, "A is the covering material, and B the closely coiled spiral springs of metal, which are enclosed in tubes, *d*, in the covering material. The covering material is puckered over the springs, which, however, do not extend to the edges of such material, inelastic and unpuckered margins *e* being left outside of the ends of the springs. The springs are secured at their ends to the covering material, so that they are wholly independent of the stitching that secures the gore in position." We find there is no such language as the above found in the Miller English description, and there is great doubt as to whether the above language quoted from the Florsheim patent would be sufficient to enable one to construct the device independently of the drawing attached to the Florsheim patent. It is stated in the specification that the covering material "A" is preferably woven "of two thicknesses, *a b*, and in the process of weaving the threads of the thicknesses are interlocked on lines *c* running parallel with the warp. These interlocked lines do not extend to the edges of the covering material, the margins of double thickness extending beyond the tubes formed by such interlocked threads."

The claims quoted above are not limited, however, to weaving the covering material in the manner specified, neither are these claims limited to having the springs composed of a single coiled wire spring passing back and forth through the groups and from group to group. The English patent issued to Mills in 1815, found in Transcript of Record p. 344, clearly does not contain the invention covered by these claims of the Florsheim patent. It will be observed that the Van Nostrand patent referred to by the court below in its opinion, was not set up in the answer, nor filed of record as an exhibit in this

cause. The Miller patent was set up in the answer, but does not appear to have been filed of record as an exhibit in this cause, and is not contained in the printed Transcript of Record.

The authorities cited above with reference to the doctrine of sufficiency of description in an old publication or prior patent, apply equally to the defense of want of novelty to the patent No. 238,101, and 238,100.

The court below, in that part of its opinion which relates to the complainant's gusset or gore patent, says that Miller's patent "shows the gusset with tubes into which springs are inserted, and upon which the cloth or gusset material is puckered, and margins for attaching the gusset to the garment where it is to be used or applied." In fact, Miller's patent does not *show* any gusset—it has no drawing at all; neither does it say that it has puckered material over the springs and plain unpuckered margins *at the ends of the springs*. The description, as we contend, is not sufficient to enable one to make a gusset like the Florsheim gusset. The court also states in the same connection that "The old Mills patent of 1815, showed a gusset with metal springs inserted in tubes, and the cloth puckered over those tubes so as to provide for expansion, but the patent did not expressly provide for a plain or non-elastic margin, and all Miller did in 1866, over Mills in 1815, was to put a non-elastic margin upon the Mills gusset, and all that Florsheim did was to substitute metal springs in place of the rubber springs shown in the Miller patent." This clearly is not good law, because Miller does not describe such a gusset as Florsheim describes. Neither is there in the Florsheim gusset patent such springs as are described in the Mills patent, because the Florsheim claims, last quoted

above, limit the springs to being enclosed in tubes not extending to the edges of the covering material, and stayed at their ends by such covering material, and inelastic margins outside of the springs. Neither of these patents describe tubes, "not extending to the edges of the covering material," with springs stayed at their ends by such covering material. It is a sufficient answer, however, to this statement of the court, that he is compelled to go to one patent for certain features or elements, and to another old patent for another feature, since it takes the combination of both features to produce the results which Florsheim claims to be produced by his invention.

There is another reason why the Florsheim patents should have been sustained.

There was no corset in use, and there is no evidence that there ever was a corset manufactured at all resembling the Florsheim corset. It was most notably a new corset. It immediately went into very extensive use, and in a short time the complainants employed more than six hundred operators in its manufacture, and since then that number has been nearly doubled.

It was held in *Washburn et al.* vs. *Gould*, 3 Story, 122, that:

Where a patented invention proves to be of great utility, and defendant attempts to anticipate the patent in issue by a prior patent, it is a matter of weight, making against defendant's position, that during the period of years no one constructed the patented thing from the prior patent. Also, a prior patent, in order to be a successful anticipation, must clearly describe the patented thing in issue.

It was also held in *Brooks et al.* vs. *Jenkins et al.*, 3

McLean, 432, that doubts as to whether a prior patent exhibits the device of the patent in suit is fatal to defense on that point.

L. L. Coburn,
of Coburn & Thacher,
for Appellant.

IN THE

SUPREME COURT of the UNITED STATES.

OCTOBER TERM, A. D. 1889.

No. 217.

SIMON FLORSHEIM and THOMAS H. BALL, *Appellants,*

vs.

GUSTAV SCHILLING, *Appellee.*

BRIEF FOR APPELLEE.

L. L. BOND,

For Appellee.

HORACE O'DONOGHUE, BRIEF AND ABSTRACT PRINTER 192 S. JEFFERSON ST., CHICAGO.

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vs.

GUSTAV SCHILLING, *Appellee.*

BRIEF FOR APPELLEE.

This suit was brought for the alleged infringement of Letters Patent No. 238,100 and 238,101, both granted to appellants as assignees of Simon Florsheim, the first for an improvement in corsets, and the second for an improvement in elastic gores, gussets and sections, for wearing apparel. The application for the patent No. 238,101 was first filed, but both patents were issued and dated February 22, 1881.

We are not advised in relation to the special points of error assigned by the appellants, but as the court below dismissed the bill mainly upon the ground that the patents were both anticipated in and by the prior art, or

that in view of the prior art, the patents did not show patentable inventions, the presentation of the case will be mainly upon this point.

There were other issues raised below, but as the case mainly turned on this, they are not exhaustively considered.

Patent No. 238,100.

This patent is for an alleged improvement in corsets, and it is stated to be "an improvement upon the corset shown in the patent granted November 25, 1879, to Gustav Schilling and myself" (Simon Florsheim). This Schilling and Florsheim patent is No. 222,082, and will be found in the record, p. 333. The object of the improvement is stated to be to allow the older corset an easier and more equal expansion, so that it will adapt itself more perfectly to the form of the wearer; have means for lacing the corset at the back; include a better and a cheaper method of securing springs and forming groups, and allow the stitching of the elastic gore or section by sewing machines. The specification (p. 183), referring to the corset shown in the drawings, states that "the corset is "composed of two separable parts, A, B, which are secured "together at the front, *as usual*, by studs and loops, and "at the back have eyelets for receiving lacings." From this statement it appears that the suggested object of improvement for providing a lacing at the back is merely the selection of a different corset from that selected by Schilling and Florsheim, the two being equally old.

The use of covered and grouped metal spiral springs referred to in the object of invention is found in the Schilling and Florsheim corset patent, referred to as the one to be improved. The statement in this older patent

is " the spring-tubes are arranged in series of three or four so as to leave spaces between the groups of tubes." The better and cheaper method of securing the springs, and the method of adapting the gore to sewing machine stitching, are methods old and well known in the art, as will appear further on.

The claims are:

1. " In a corset, an elastic section composed of two " thicknesses of cloth or other material, *a b*, having tubes " *c*, in combination with the spiral metal springs E, inclosed " by such tubes, and arranged in groups to regulate the " elasticity of the section, such groups being all composed " of a single *continuous* spring passed back and forth through " the tubes, and secured at its ends, substantially as " described and shown."

2. " An elastic section or gore composed of material " having tubes extending only part way across the same, " and *plain* margins outside of said tubes, and spiral metal " springs arranged in groups in such tubes, the springs of " the several groups being made *continuous*, substantially " as described.

3. " A corset laced at the back and having the " elastic side sections, C D, extending from under the arms " down over the hips, each of such sections being com- "posed of material having puckered tubes extending part " way across the same, and plain margins outside of said " tubes, and spiral metal springs arranged in groups in " such tubes and made *continuous*, substantially as " described and shown."

Claims Alike—These claims are substantially alike, the principal difference being that the tubes of the first claim are to be formed of two thicknesses of cloth for the formation of tubes, but as both of the other claims call for

tubes, and the specification only describes their formation by the use of two thicknesses of material, there is no substantial difference in this respect. The first claim does not in terms call for plain margins at the edges or sides of the sections or gores, while the second or third do. The third claim calls for a corset laced at the back with side sections located under the arm, but this requirement cannot be used to differentiate the third from the first claim, (1) because the patent itself refers to it as "the usual form," and (2) because the Schilling and Florsheim patent referred to in this specification recites the form as being old. The statement in Schilling and Florsheim patent (p. 333) is: "For this same purpose, the corset, *instead of being made in two parts, as usual*, is made practically of a single part." In other words, Schilling and Florsheim either united the parts, or rejected the usual two-part corset in applying their improvement. Florsheim cannot come back afterward and select the rejected form as a matter of differentiation, besides, the first claim calls for the corset "described *and shown*." The corset of the third claim is the corset described and shown.

The spring of each of the claims is a spiral metal spring subject to three conditions: (1), arrangement in groups; (2), location in tubes; and (3), continuous.

As the spiral metal spring, arranged in groups in tubes formed in a material which is composed of two parts, are unquestionably shown in the Schilling and Florsheim patent for the same uses and purposes as those stated in this patent, the only matter by which the one can be distinguished from the other is the margins of the gore and the "continuous" of the spring.

As will be seen further on, the continuous feature of the spring is old, as well as the margin of the gore.

While the continuous feature of the spring, which is made a feature of all the claims, may be used as a limitation upon the claims themselves, this feature cannot be used on the question of novelty or invention, because the specification states (p. 184): "The *cheapest* manner of arranging and securing the groups of springs to secure the above advantages is by making all the groups of each section from a single continuous length of metal spiral spring."

This continuous feature is nowhere stated to be essential or important, and its being stated simply as "the cheapest," clearly indicates that the matter of making them continuous or not, is a matter of expense in manufacturing, and not a matter of differentiation in the completed article itself. The statement is equivalent to saying that the same thing can be made in a more expensive way by not making the springs continuous.

In the Patent 238,101, which was first applied for, and is for "elastic gores, gussets, and sections for wearing apparel," the sections have the same margins with springs that are not continuous, and we thus have a showing by the same inventor, in a patent of the same date, as to how to make these same sections or gores without making the spring continuous, which showing serves to emphasize "the cheaper" of this patent.

With regard to the side margins for adaptation to machine stitching, the record shows that the model on file in the Patent Office in connection with the Schilling and Florsheim patent referred to in the specification of the patent in suit, has the same margin that is now in controversy, and that the springs are continuous for each group. See Smith, pp. 310–311, and his sketch of said

model opposite p. 312; also, S. Florsheim, pp. 123-4, 149; Baer, p. 175; Schilling, p. 304.

This older Schilling and Florsheim patent does not state how these elastic sections or gores are attached to the main parts of the corset, but the statement, page 334, is: " Into these tubes, previously puckered to the proper " degree, are inserted small springs *d*, preferably of brass " wire, coiled spirally, with the coils in contact, and each " of the required length, and fastened at the ends *to the* " *cloth*, or fastened both *to the cloth and the edge* of the " sections A A."

This statement that the ends of the spring can be attached to the cloth, or both to the cloth and the edge of the side sections, clearly indicates that the section may or may not have margins as desired, for they cannot be attached to the cloth without being also attached to the edge of the sections A, A, unless they are shorter in length than the full width of the gore.

Model—" It is to be recollected, likewise, that the " *models* and drawings were a part of the case below, and " are proper to be resorted to for clearer information. " *Earl* v. *Sawyer*, 4 Mason C. C. 9."

Hogg v. *Emerson*, 6 How. p. 485.

" The original application for letters-patent (with its " accompanying drawings and *model*), filed by an inventor, " should possess great weight in showing what his inven- " tion really was."

Railway Co. v. *Sayles*, 97 U. S. 554.

Taken in connection with the model filed with the Schilling and Florsheim application, which, as has been shown, we have a right to resort to to explain the patent, we find that the sole difference between the Florsheim

and the to be improved Schilling and Florsheim corsets, is the difference between making the same spiral spring continuous for all of the groups, instead of being continuous for the crossings in each group as in the older patent.

Schilling, pages 303, 304, explains this peculiarity in the continuity of the spring by saying that he made the springs continuous to the full length of the wire coils that he then had, and that, with the sewing machine attachment he then had for coiling wire, he could not make springs longer than about twelve or fifteen inches.

Appellants' contention is that the appellee's corset is a specific counterpart of theirs, and they also insist that this specific imitation of the Florsheim corset contains the subject matter of the first and second claims of the Patent 238,101. This contention is untenable if the feature of a continuous spring is anything more than a cheaper way of making the gore, gusset or section of this patent, for appellants stand here claiming that the same device infringes two patents, one where the spring is continuous, and the other where it is not. If there is any point between continuous and non-continuous, appellants are not in a condition to raise it, as they assert, by suing on both patents, that continuous and non-continuous are the same thing.

Patent No. 238,101.

It will be seen from the record (p. 31), that the court below originally held this patent to be void for want of novelty as to all of its claims, and so decreed (p. 32), but amended the decree so as to make it apply only to the first and second claims, as those were the only ones in controversy. These claims are as follows:

1. "An elastic gore, gusset, or section for wearing "apparel, composed of a covering material having tubes, "spiral metal springs inclosed by such tubes and not ex- "tending to the edges of the covering material, and stayed "at their ends by such covering material, and inelastic "margins outside of the springs, substantially as described, "for the purpose set forth.".

2. "An elastic gore, gusset, or section composed of "covering material having tubes, and spiral metal springs "inclosed by such tubes and not extending to the edges "of the covering material, and stayed at their ends by such "covering material, said covering material being puckered "at its center over the springs, and having a plain unpuck- "ered margin extending wholly outside of the springs, "substantially as described and shown."

Claims Alike—These two claims are substantially alike, the principal difference being that the first claim does not in terms call for the puckering of the covering material "at its center over the springs," as the second claim does. But, as the combination of the first claim is utterly useless without puckering, it is necessarily carried into the first claim by intendment, under the terms of the specification, the statement there being (p. 187), "The "covering material is puckered over the springs, * * "* The covering material is made of such shape "and size that when it is puckered over the springs, the "elastic gore will be suitable for the location where it is "intended to be used." If the material is not puckered the springs would be useless, as the purpose of the puckering is to enable the elastic operation of the spring to be operative. If the covering material were drawn taut, the springs could not act, and the amount of puckering limits or determines the bounds of the spring action

for as soon as the puckers are exhausted or drawn taut, the strain passes from the spring to the covering material. This, however, is and was as well known in the art as the use of springs themselves in connection with wearing apparel, and it is wholly unimportant in this respect whether the springs are made of coiled wire or of India rubber, or any other suitable spring material.

If there is any invention disclosed in this patent, it is that of fastening the spring ends together by means of a split tube or a plate, which is the subject matter of the fourth claim.

Weaving.—The particular point of the third claim is the formation of tubes by weaving; but as the patent states that they may be formed either by sewing or weaving, no valid claim can be made for weaving, and if there is any special point in forming the spring tubes by weaving, that special point should be carried by intendment into the first and second claims. The statement of invention (p. 186) is: "Third, in weaving the covering material of "such elastic gore with the covering-tubes formed therein "in the process of manufacture, such material and tubes "being woven of a particular pattern to suit the location "where the elastic gore is intended to be used."

That woven corset tubes or pockets are old—

See *Cohn* v. *U. S. Corset Co.* 93 U. S. 366.

The statement in the descriptive part of the specification is (page 187): "The covering material I prefer to "weave of two thicknesses, *a b*, * * * The woven "covering material with the tubes woven therein during "the process of manufacture is cheaper, stronger, and "neater in appearance than when such tubes are formed "by sewing."

The tubes in the appellee's corset are formed by

stitching (p. 286), so that if there is any point or value in weaving, it is not found in appellee's corset.

Spring Fastenings—Both of the claims in controversy call for springs which are "stayed at their ends by such covering material." It is a little difficult to understand what this condition or requirement means. The statement of invention is "and, fourth, in the peculiar fastening "for securing the springs to the covering material, all as "fully hereinafter explained, and pointed out by the "claims. * * * Fig. 6 an end view of one of the "fasteners for securing the springs of a group to the cover-"ing material."

The description (p. 188) is: "The springs of each "group are preferably secured together at their ends "and to the covering material by split metal tubes C, * "* * Instead of the split tube, the springs may be "connected by small plates pushed between the coils. "These metal fastenings lie across the ends of the tubes "between the thicknesses *a b* of the covering material, "and *stay the ends of the springs by fixing them to the* "*covering material* at those points."

This kind of "stayed at their ends" is not practical in any situation where continuous springs are used, and it is particularly undesirable under any circumstances (pp. 281, 290).

There is no statement or intimation that the springs are to be otherwise "stayed at their ends" than by the preferred form of staying them in groups by the use of split tubes, or the non-preferred form by staying each end separately by the use of plates. As appellee's corsets have neither split tubes nor plates, and as neither of these methods of staying the spring ends can be used with a continuous spring, it is difficult to understand why infringe-

ment is alleged in respect to this patent; but, as infringement is charged, the appellants, to make a case, must either ignore this special fastening, or admit that any fastening is the equivalent therefor. They must also admit that single short springs are the full equivalents for continuous springs.

Art—Schilling's glove patent No. 218,322 of August 5, 1879, comes exactly within the first claim of this patent, with the single exception that possibly the metal springs inclosed in the tubes do not come short of extending to the edges of the covering material, or, in other words, it simply lacks what is called the margin; but as he, in his specification, refers by number to the English Miller patent of 1856, which said patent provides for this margin, it certainly could not change the character of Schilling's "band straps or gores," to leave an attaching margin at their ends or sides. On page 330 he says: "These springs, being cut off to their required lengths, are "inserted into flexible and yielding tubes *b*, made by uniting two sheets or strips of thin leather with parallel "seams of stitching, so as to form a tube between two "such seams. These leather tubes are made about twice "the length of the springs, and are contracted over the "springs, so as to form a multitude of small wrinkles." He does not state how far he wrinkles or puckers up the tubes, and it certainly would not change the character of his elastic strap to leave the edges unpuckered, as they are shown in the Schilling and Florsheim corset patent, at the shoulder strap. The claim of this patent, 218,322, is: "The combination, with a glove, of a series of "spiral metal springs, *a*, inclosed in separate puckered "tubes, and permanently attached at both ends to the

"wrist portion of the glove, constructed substantially as "described and shown."

Schilling's patent of April 22, 1879, No. 214,712, shows an elastic gore for a shoe in which the coiled wire-springs are arranged in groups, and he says (p. 331) that his invention "consists in the application of a series of small "coiled-springs inclosed in finely-wrinkled tubes formed "by uniting two flaps of thin leather with parallel seams "of stitching, and arranged in series with blank spaces "between the different series, so as to adjust the tension "of the various parts of the elastic gore."

Further down on the same page (331) he says: "These springs *b*, I arrange in said gore in series of two, "three, or four, with a blank space between each two "series, in accordance with the required elastic resistance "necessary for making a tight and yet easy fit of the gaiter "around the angle of the foot."

Fig. 4 of this patent shows the manner of attaching the gore to the shoe-vamp, and the springs apparently stop short of the seam, but the statement in the specification is that a number of small wrinkles are "equally distributed "over the whole length of the springs, and the ends of the "latter are secured in the ends of the tubes in the gore, "which again, with its edges, is secured by stitching be-"tween the edges of the material and the lining of the "gaiter in the usual manner."

If the tubes extend clear to the edge, this gore would have no margin, and it is probable that they did, and that the spring ends, as shown in Fig. 4, are flattened down, and that the sewing in of these springs is what Florsheim refers to when he says that in sewing in gores the sewing machine needle was liable to hit the wire and break. But it will be readily seen that gores having a margin

would come specifically under this patent, provided the tubes or the stitching for forming the tubes did not extend quite to the edge.

In the Schilling and Florsheim patent, No. 222,082, of 1879, these inventors both say (p. 335): "We are aware "that it is not original with us to use metallic wire coiled "springs inclosed in cloth tubes in corsets, * * * "or to provide corsets with partially elastic shoulder "straps."

PRIOR ART.

U. S. Patent No. 172,901, dated February 1, 1876, to Mary J. C. Van Nostrand, for an improvement in corsets, was regularly introduced in evidence on the part of the appellee (p. 322), and is referred to in the opinion of the court, but this patent, as well as the file records of appellants' patents offered in evidence (p. 328), are not printed in the record. The reference to this patent by the court below (p. 29) is for the purpose of showing that the corset selected by Florsheim was a Van Nostrand corset, or a corset laced at the back, in which the elastic sections were at the sides, and extending from the arms to the bottom of the corset at the hips. This is the finding of fact by the court in reference to this patent. Its omission from the record is not specially important, as the appellants' Patent No. 238,100, admits the corset to be an old one, and appellants' witness, Huleatt (p. 178), testifies concerning Florsheim's endeavor to sell his Schilling and Florsheim corset, as follows:

"He brought the corset to me, not so much to sell it "at the time as to ask my opinion on it. I considered it "was a good thing, but suggested to him that instead of "having this web in the back and having it open only in "front that he make it *the same as any other corset* in

"shape—that is, to have it *laced in the back with the* "*springs only on the side.*"

Huleatt testifies that this was early in 1879 (March, he thinks); that he was the buyer for Chas. Gossage & Co. Gossage & Co. were and are large dealers in this class of goods.

From this it appears that Huleatt, and not Florsheim, selected or advised the form shown in appellants' patent, and it further appears that this was an old and well known form of corset, which dealers at that date preferred to corsets closed at the back, as was the Schilling and Florsheim corset, that Florsheim was then exhibiting. All the talk, therefore, about lacings at the back, gores or elastic sections at the side vanish, so far as Florsheim is concerned. They were already furnished to his hand.

1815 English Patent — English Patent No. 3,894, of 1815, to John Mills, shows corsets with an elastic section at the front or back, in Fig. 1; with an elastic section at the front or back and lacings under the arms, in Fig. 2; with an elastic section at the front or back, with lacings under the arm, and side elastic sections immediately in front or rear of the lacings. The drawing apparently shows the elastic section common to all three figures in the front, but the statement (p. 343) is: "My improve- "ment of elastic stays for women and children * * "consists in the introduction of a flexible or elastic por- "tion in those parts of the stays best calculated to give "relief to the wearer, and at the same time preserving "that stability and support usually given to the body by "the common adoption of whalebone, steel, and other "hard or flexible material."

This statement leaves the manufacturer to place the elastic portion where it will do the most good, and near

the close of his specification he says: "The manufacture "of these patent stays is not confined to form or shape, "neither to the use of any particular article or material of "which to make the same, but to adopt such as custom or "propriety dictate, adhering to the principle of inserting "elastic portions into the stays of such form," etc.

It will be noticed that Mills, in his specification, calls corsets "stays," and Webster defines a stay as a stiffened waistcoat-bodice-corset.

Mills, page 343, describes his elastic sections or portions as follows: "This flexible portion is composed of "springs, either of brass, copper, or iron wire, or of any "other matter or thing capable of producing sufficient "elasticity; but that which I recommend is *small brass* "*wire worm springs*, which extend by a small degree of "force. These I place close together in runners or spaces "*stitched in between two pieces* or laying of silk, satin, or "other fit material, *puckered* or quilted loosely to give "room for expansion, the ends of the springs and their cov-"ering of silk, satin, or other matter on them sewed or "otherwise fastened to and between the two half pieces of "the stay (corset) previously made of the usual materials, "such as jean or other cotton, linen, silk, woolen, or "leather, with the proper busks or necessary portions of "steel, whalebone, or other substance commonly adopted, "calculated to distend the stay (corset), and brace and "support the body."

In regard to Fig. 2 he says: "This elastic portion "is composed of dilating springs, as before expressed, "either of copper, brass, iron, or other matter, but brass "wire worm springs I prefer, covered as before described. "In this elastic portion the springs *need not be placed so* "*close together* as in figure 1, and it will be found neces-

" sary to place *stronger springs at the top and bottom than* " *in the middle.*"

We find at this early day a corset having the elastic sections made in the same way, placed at the sides and back or front, made of the same material, with the same coiled wire spring inserted in the same puckered material, having the same tubes with an arrangement of springs practically in groups, or stronger at the top and bottom of the corset than at the middle, the same article of manufacture for the same purpose and producing the same results as are produced by wire when compared with rubber, and all other matters of use that are found in the appellants' patent.

The testimony of Zimmerman (pp. 291, 297) is that the drawings show attaching margins similar to the appellants'. This was the state of the art in 1815.

1866 English Patent—In 1866 an English patent, No. 3,451, was granted to Miller & Miller, which shows such an advance in the art as brings it up to the full level of appellants' patents. The statement of this 1866 English patent is (p. 336): " This invention has for its object improvements " in the manufacture of elastic gussets suitable for use in " boots, and stays (corsets), and for other purposes." After referring to older forms, they say (p. 337): " Now, accord- " ing to our invention we secure the vulcanized India-rubber " springs between two pieces of woven fabric, leather or " other material, *by stitching with a sewing-machine*, the " stiches running in parallel lines and passing through the " two pieces of fabric or material between India-rubber " springs, and the springs, in place of being each a separate " piece, are *in one piece*, the length of vulcanized India- " rubber *cord* at the end of each traverse across the gusset " being turned round and caused to return parallel to itself;

"thus the liability of the India-rubber to slip and work "out of the gusset is much reduced."

In manufacturing, they say that they first cut the material "to the size required for the gusset when extended, and for leaving *the required margin*" They then turn the top edge over the lining, so as to form a hem, and say: "We then commence to stitch with a sewing machine "a series of rows in parallel lines transversely across the "gusset, the stitching passing through the two materials, "commencing at the top and so on from row to row "until the whole of the gusset is stitched."

They then state that the distance between the rows of stitching will depend upon the size of the elastic thread to be inserted, and say: "We then pass between the two "materials into every space or cavity between the rows of "stitches wires or needles, of a length somewhat longer "than the width of the gusset and of the size of the "cavity; the gusset is then ready to be contracted or "drawn up to the size required."

They then describe a machine for doing this contracting, which is almost identical with the machine described by Schilling, in his testimony, for doing the identical thing, using the same wires or needles for holding open the cloth tubes while the contracting or puckering is being made. When the proper contraction and puckering is accomplished, they commence by drawing out one needle and drawing in the rubber cord, and by withdrawing successive needles and drawing the rubber cord through, back and forth, until the elastic section is completed.

This machine contraction on wires or needles, is the identical process used by appellant, as shown by the testimony, for inserting springs and puckering the covering material, and so far as appears it is to this day the only

known method of doing it. Appellants have not in this respect advanced the art one iota.

We have here also the continuous spring of appellants' patent beyond a peradventure, the difference between the two being simply that the appellants use the spring of the English 1815 patent instead of the spring of this 1866 patent.

Margins—That the Millers had this much vaunted margin is also beyond a peradventure. They say (p. 337): "When gussets made in this manner are worked into "boots or other articles the stitches by which they are "secured are passed through *a margin on each side of the* "*gusset* and not through the India-rubber part of the "gusset, as heretofore. * * * We first cut "the material—leather, silk, cotton, or any other fabric— "and the lining to the size required for the gusset when "extended *and for leaving the required margin.*"

On page 338, after describing the manner of running in the continuous springs, they say: "We then pull back "*the margin that is left as large as is required* and tack "it down with an ordinary needle, and the gusset is ready "for use."

They also describe a method of reënforcing the margin, and of furnishing an additional holding for the rubber cord at the turnings. They say: "When it is desired "to form *a strong margin* to the sides of the gusset "(before withdrawing the needle or wires from the *tubes* "or spaces formed between the rows of stitching) we "press down on to the points of each of the needles or wires "a strip of canvas, the points being caused to pass through "the middle of the strips. The strips are then pressed "down on the points to bring them close up to the edge "of the gusset, and afterward the wires are removed and

" the thread or strand of India rubber inserted, as above " described, the India rubber being passed through the " holes formed by the wires through the canvas, as well as " being passed through the spaces or *tubes* formed across " the gusset. When this is completed the canvas is doubled " over, and *the margin or edge* of the gusset will be com- " posed of two thicknesses of canvas, *in addition to the* " *fabric and lining* of which the gusset is composed."

We have here the margin, and also the additional security at the sides of the gusset, identical (except as to material) with that which Florsheim uses in his patent, 238,101. Miller uses a canvas tube, which is easily flattened, while Florsheim uses a slit metal tube.

State of the Art—From this it will be seen that the continuous spring, the margin, and the use of sewing machines are all old, and that Florsheim has not in any respect whatever advanced or changed the prior art. The utmost that can be said for him is (conceding him to be the inventor of all that he claims in his testimony), that he pulled out the Millers' rubber cord, and put in the Mills' brass wire cord of 1815, in the same way and by the same means that the Millers used in 1866.

Patentees' Knowledge—The Miller patent is especially important, for the reason that it appears, upon Florsheim's admission (p. 149), that he had read this patent or had been to the public library to look up English patents on springs, and Schilling's statement, page 219. Schilling (p. 212) says that he cannot talk very plain English, and (on p. 225) that he cannot read English, either written or printed, which statements will account for the peculiarities of his deposition. On page 223 he says: " My inven- " tion is this continuing spiral wire springs, and I comes " to this idea, that Mr. Florsheim takes me in the public

"library and read me that out the English patent-book,
"that Miller & Son, 1866, made with rubber cord this
"elastic springs-continuings. *It brings me to this idea to*
"*make this with spiral wire springs;* that I go home right
"off, as I got it, so I hear. I go home and make experi-
"ments, *and since that time I got it on every kind of work*
"—only continuing springs, that's all."

On page 198, he says, that Florsheim took him to the public library, *and read this English patent to him*, that he understood it, and that he got his ideas from that patent, and also that he went immediately home, and successfully tried the Miller plan with coiled wire. Florsheim denies this, but as Schilling cannot read English, and as no one else had sufficient interest to do it, and some one did do it, Florsheim must be mistaken.

The only excuse that either of these parties make for claiming an invention is that they used *coiled wire* springs instead of Miller's *rubber cord* springs, but this is confessedly only a mere change of material, and baldly so, as the record in this case shows these coiled wire springs to be older than the rubber ones.

Changing or substituting material is not invention:

Hotchkiss v. *Greenwood*, 11 How. 248.
Hicks v. *Kelsey*, 18 Wall. 670.
Terhune v. *Phillips*, 99 U. S. 593.
Stow v. *Chicago*, 104 U. S. 547.

Grouping—In the patent No. 238,100, the arrangement of the spring in groups is made a limitation or condition, while in the Patent No. 238,101, the claims in controversy do not contain such a limitation. Under appellants' contention that the same corset infringes both patents, grouping must either be unimportant, or consti-

tute a patentable difference. Appellants, however, can hardly insist that it is a different invention, under the well-known rule or axiom, that two things which are equal to a third, are equal to each other. Under this rule, if the appellee's corset is equal to three claims of the Patent No. 238,100, and to the subject matter of the first and second claims of the Patent No. 238,101, then appellants' two patents must be for the same thing.

If the patent having the lowest number stands as the oldest patent, then grouping cannot be considered or treated as a matter of addition. If the one having the highest number stands as the oldest patent, then it anticipates the other, as it contains the provision for grouping. If the two stand as supposed divisions of the same general subject matter, then there is no patentable line of difference between them, for Fig. 2 of the Patent 238,101 shows the same system of grouping that is shown in the other one, with the sole difference of running the coiled wire from one group to another, thus leaving the sole support of the Patent 238,100 to stand on the word continuous for the wire; but this difference, as we have already seen from the proofs, was bodily taken and copied from the Miller English patent.

The Millers suggest stronger springs for the top and bottom of their section, and also, that the number of tubes may be varied. They do not suggest any non-uniform arrangement of the cloth tubes, to be filled by their continuous spring, but appellants' patent, No. 238,101 (page 187), suggests a method for a gore or section having these uniformly arranged tubes, which can as well be adopted for the Miller gore or section as for the Florsheim. The suggestion is, "or the covering material may be pro-"vided throughout its width with contiguous tubes, and

"the springs could then be arranged in groups, as desired, "a number of tubes between the groups of springs *not* "*being occupied.*"

This suggestion of omitting to occupy a portion of the tubes for the purpose of forming groups, can be used with the Miller section or gore as well as with the Florsheim, so that, in fact, the gore or section of appellants' patent may be made under the Miller specification as well as under the Florsheim, and the Miller section is adapted to the identical use suggested in that part of the specification just quoted.

Another objection to the differentiation on the line of grouping is that the patents to Schilling, April 22, 1879, and to Schilling and Florsheim, November 25, 1879, both show the same arrangement of grouping, and in relation to the Schilling patent of April 22, 1879, Florsheim (p. 128), says: "The shoe-goring application was made by Mr. Schilling and was his invention." So that if there is anything in grouping, it belongs to Schilling, the appellee, and not to Florsheim or to the appellants, and the very patent which Florsheim in his Patent No. 238,100 attempts to improve, shows all that there is in grouping; so that this feature may be laid aside in attempting to determine what Florsheim supposed he had invented.

Advantages—Considerable testimony has been taken, and, in the case below, the supposed advantages of the corset shown and described were pressed with great zeal. It will, however, be noted that all of the advantages mentioned in the proof and urged by counsel are recited in the Schilling and Florsheim patent, which patent is recited in appellee's specification as the one to be improved by Florsheim. The advantages now urged for Florsheim were *all*

urged at the Patent Office (as appears by the specification) in the older patent to Schilling and Florsheim, and this fact is sufficient to dispose of this entire argument.

Three ladies are called to testify to the advantages special of the Florsheim construction, and, on cross-examination, they all admit that they had never worn any other than the Florsheim or Ball and Florsheim corset.

Rubber—There is testimony in regard to the undesirableness of rubber springs, which is peculiar. One point made is, that rubber contracts under heat, which is contrary to the laws of heat, and to the general experience. Another is that rubber rots rapidly, even while lying dry on shop shelves, and particularly so when subjected to animal heat; but every one who has worn elastic suspenders knows that this is not so. It is only when in contact with metal that rubber deteriorates rapidly. If these points in regard to the undesirable qualities of rubber are well taken, they cannot be used to bolster up this Florsheim patent, as they are both recited in the older Schilling and Florsheim corset patent.

In a Corset—An attempt has been made to take the first claim out from under the Miller English patent, because it commences with the words "in a corset," but this is not tenable. The Millers say that their invention "has for its objects improvement in the manufacture of elastic gussets suitable for use in boots and *stays*, and for other purposes;" we have already seen from the English patent of 1815 and from the definition of the word "stay," that it means corset, so that the Miller gusset or section is for a corset as one of its stated uses.

It has been repeatedly held, that it is not invention to transfer a device from one object or use to another.

The latest enunciation of this doctrine will be found

in *Royer* v. *Roth*, 132 U. S. 201, where the court at this term held that the combination "in a rawhide fulling machine" did not take the claim away from a similar device in a washing machine. The statement (p 204) is: "The operation of the automatic reverser in connection "with the fulling machine is precisely the same as its oper- "ation in connection with the washing machine, or with "any other machine to which it can be applied. There is "no modification of its action produced by attaching it to "the fulling machine."

This is a specific statement of the application of the old, well-known doctrine of "analogous use," and, in *Thatcher Heating Co.* v. *Burtis*, 121 U. S. p. 295, the court states the doctrine that, if there is any invention in transferring a device from one situation to another, such invention must lie in the means used for adapting it to its new situation, and not to the thing itself.

No New Means—The gore described in appellants' patent, 238,100, is the old gore with its continuous spring margin and groups, and there is no suggestion that it is attached to a corset by any other or different means than that used in attaching it to shoes, overalls or gloves.

There is no patentable difference between attaching the gore or section by hand or by a sewing machine, and even if there was, that difference belongs to the Millers, as they speak of using a sewing machine for their work. This question has also been considered at this term in *Marchand* v. *Emken*, 132 U. S. 195. On page 199 the court says: "The question, then, seems to be narrowed "down to this: Does it constitute invention to stir, by a "well-known and simple mechanical device, what had "before been stirred by hand?" And the court answered that it did not, and that such changes where well-known

machinery was used did not amount to invention. The sewing machine was a well-known substitute for hand sewing long prior to the date of appellants' patents, and was known in the manufacture of corsets in 1866 by the Millers.

The Miller Patent—An attempt was made below to show by argument that the Miller English patent did not contain sufficient instruction to enable a skilled workman to make the elastic gusset or section of that patent, and it was mainly based upon the failure of counsel to understand this statement (p. 337): "We then turn over "the top edge and baste or tack it down to the lining; "we then commence to stitch with a sewing machine a "series of rows in parallel lines transversely across the "gusset."

This statement cannot be incomprehensible to any one who knows anything about sewing. It is a simple direction for making a hem at the top, and that in doing this, they say that they baste the hem over the lining before putting it into the sewing machine, so that when the gusset is run through a sewing machine the top row of stitches will fasten the hem and make the upper line of stitching for the top tube. That is all there is of it, and all the mystery there is about it. It is the plain and simple method of basting the hem before putting it into the machine, always practiced in the early stages of sewing machine use, and, if the operator did not have a hemmer attachment, this old, well-known practice of basting would still have to be resorted to to get a true hem.

Some difficulty is claimed by counsel in understanding the machine described by the Millers for puckering the gusset or section, and holding it on the puckering needles until the continuous spring is inserted. It is not im-

portant to understand this machine, but as both appellants and appellee have copied this Miller machine for the same purpose, and use it in the same manner, it is quite clear that they, at least, were able to understand it; but it is wholly unimportant to the issues of this case whether the puckering machine is understood or not.

There is no testimony about the Miller patent being insufficient in its specification; the only testimony on this subject is Zimmerman (p. 208), and his statement there is in effect, if not in terms, that the specification is sufficient, and on page 284 he says, that so far as these patents are concerned, the Miller continuous spring of rubber, and appellants' continuous spring of coiled wire, are for the purposes of these patents precise equivalents one for the other, and that there cannot be an invention in substitution one for the other.

Weaving—The question as to whether the weaving of the fabric called for by appellants' Patent No. 238,101 involved differences, is answered by the depositions of Rothschild and Beckel (pp. 314, 315), where both of these witnesses state this woven fabric is at least thirty years old, and has been by them imported into this country for use in corsets for more than fifteen years prior to 1882, and that, as so imported, metal springs were in the tubes. And from the statement of these two importers, it appears beyond a peradventure, that there is nothing new in appellants' Patent No. 138,101, not even the weaving of the tubes. In this patent the springs are not continuous, and are not necessarily arranged in groups. This patent, therefore, as well as No. 238,100, fails for want of novelty.

Patents Void—In view of what Schilling and Schil-

ling and Florsheim had done prior to Florsheim's supposed invention, it also clearly appears that the appellants' patents are utterly void for want of patentable novelty, and, when considered in their relation to the prior art, that they are as thoroughly and as completely anticipated as it is possible to anticipate any alleged invention. There is not a point, or a combination of parts, left for the appellants' patents to stand on.

Novel Element—If there was any novelty in any of the parts, under our law, this could not be considered, as this court has uniformly held that where combinations only are claimed, the combination, and not the parts of which it is composed, is the invention, and that it is idle to show that any one of them was invented by the patentee. Appellants' claims are all combination claims.

In the Corn Planter Cases, 23 Wall, page 224, the court says: "Where a patentee, after describing a "machine, claims as his invention *a certain combination* "*of elements*, or a certain device, or part of the machine, "this is an implied declaration, as conclusive, so far as "that patent is concerned, as if it were expressed, that "the specific combination or thing claimed *is the only part* "which the patentee regards as new."

The holding in *Miller* v. *Brass Co.* 104 U. S. 350, is the same, or possibly a little stronger.

The opinion of the court below, is, in and of itself, a good brief, and this review of the case upon the points on which the court passed, amply shows that the court was fully justified in reaching the conclusion which it did, and it is practically unnecessary to consider the case further, as the record fully justifies the finding below.

This case seems to come within the rule stated, and the reasoning of the court in:

Pearce v. *Mulford*, 102 U. S. 112.

Hollister v. *Benedict Mfg. Co.*, 113 U. S. 59.

Slawson v. *Grand St. R. R. Co.*, 107 U. S. 649; and cases there cited.

II.

The second defense is that the improvements covered by the Florsheim patent, so far as any changes between this and the prior art are concerned, was the invention of Schilling. While we do not concede or believe that there was, in fact, any invention by either party, the record shows that this business began with Schilling; and from a general survey of the record, and of the patents obtained by these parties, we can readily understand how they thought they had made an invention in substituting coiled wire springs for the rubber springs then in common use, and believed that, having such new kind of spring they were entitled to patents for each different use to which such springs could be applied. They evidently did not understand that the law would not justify this, even if they had invented a new material, for this court has repeatedly declared the law to be that, when an inventor has a new material or a new device, he has it for all the purposes to which it can be used or applied, and that patent monopolies cannot be multiplied by differences in uses, or by obtaining a patent for each different change of use, when there is no substantial difference in the application of such material or device to the new situation.

Heald v. *Rice*, 104 U. S. p. 755.

Stow v. *Chicago*, 104 U. S. p. 550.

Thatcher Heating Co. v. *Burtis*, 121 U. S. p. 295; and cases there cited.

Lacings—Florsheim evidently supposed he had made an invention when he changed the corset to one having lacings at the back, from the one having the elastic gore at the back, shown in the Schilling and Florsheim older patent; that he had a right to accept Huleatt's recommendation to take the more approved and equally old form of corset, and apply this coiled metal spring to that, and that in so doing, he had made an invention, and in this he seems to have been led or misled by the action of the Patent Office in granting so many other prior patents, having for their sole supposed novelty the difference between a coiled wire spring and a rubber spring.

As the coiled wire spring, upon investigation, turns out to be the older spring of the two, the supposed foundation for all of these patents fails, but so far as novelty was supposed to exist, even this belongs to Schilling, as will appear from the following brief resume of the testimony:

Schilling made the improvements in controversy first.

He learned his trade as a glove-maker in the old country, and there used coiled springs in various articles. The springs were arranged in groups, and a margin was left. (P. 194.) He made gloves in Chicago with wire springs before 1879; showed them to Florsheim early in January, 1879, and applied for a patent February 1, 1879.

In January, 1879, he made a corset for his wife with single wire springs (p. 215). Another such corset was made for Amelia Bopp in January, 1879, *which had margins* (pp. 253–54).

Alexander Schilling (p. 236) says the spring sections *had a margin* on each side; also (p. 238) that gaiters

were made in the fore part of 1879, the springs *having the margins*. The gaiter patent shows groups.

Page 198, Schilling tells the story of his visit to the library with Florsheim; the same story is repeated on page 219. Schilling did not invent that story. It bears marks of truth. Alexander Schilling (pp. 229, 230, 239 and 242), states what his father told him in February, 1879, about the visit to the library. Matilda Schilling (p. 269) heard her father speak about being at the library. Florsheim (p. 149) admits that he visited the library to examine English patents; does not recollect that Schilling was present. Page 127, swears positively that he never was at the library with Schilling. Admits that Lotz gave him a memorandum of the English patent, but thinks it was in April, 1879.

Schilling (pp. 200–1), says that after his visit to the library, he used constantly continuous springs; made a gore for the pantaloons model. This application was filed March 4, 1879, which corroborates the story of the visit to the library. *The model shows partly continuous springs, margins and groups* (Pages 310 and 311, and drawing, p. 312.)

Bormann (p. 256) and Baer (p. 259) state that February 16, 1879, being Schilling's birthday, he showed them a sample like "Exhibit 4," only in leather. Before that they had seen a corset made in January with single springs.

Schilling (p. 200) states that he showed a sample of the continuing springs to Mr Florsheim, and told him they must have a press; that he applied to Brunk, who could not make it; and then went to Mr. Mason, who made one which did not work; and three weeks later went to Mr. Gruendel with Mr. Florsheim, and explained about

the press. Carlile Mason (p. 263) says that between the 20th of February and the 1st of March, 1879, Schilling applied to him to make a machine for crimping and putting wires into cloth; that he made such a machine, which was delivered to Schilling during the month of March, 1879 (p. 265).

Gruendel (p. 261) says that at the end of March or beginning of April, 1879, Schilling and Florsheim applied to him to make a machine for crimping leather or cloth. He made the machine.

It is worthy of note here that the English patent of 1866 fully describes a machine for crimping or puckering cloth to receive springs; and there is where Schilling got his idea of this machine, and as he applied to Mason between February 20th and the 1st of March to build such a machine, he must have heard of the English patent prior to that time.

March 10 1879, application for corset patent No. 222,082 was filed by Schilling & Florsheim. *The model shows wire springs partly continuous, in groups, with margins.* Florsheim (p. 148) admits that Schilling made the springs in the model.

April 18, 1879, Schilling, at his own house, showed Florsheim how to make springs (pp. 203, 230 and 270).

In the fall of 1879, Schilling made a corset with continuous wire springs, groups apd margins (p. 215). In January or February, 1880, he showed Gage Bros. such a back piece for corsets. In April or May, 1880, they made a corset for him with back and side pieces sewed in. Mr. Downs (with Gage Bros. & Co., p. 246) says that in March, 1880, Schilling showed him continuous coiled spring sections with plain margins for a corset, and claimed to be the inventor thereof. In April, Schilling sent a

sample to Woodward, of Boston, and in May four more samples of such corsets. The "Exhibit 8" is the identical one first sent to Boston (p. 205). Mr. Downs states that in the fall of 1880, Ball brought to him spring sections for corsets, and stated that they, Ball & Florsheim, had tried to make arrangements with Schilling; that he was stubborn, and that they would ignore him altogether (p. 248). Schilling explained to Florsheim about putting in the springs from the hips to the arms, instead of in the back, and he said, "better."

In June or July, 1880, Florsheim sent Schilling a postal card. When Schilling called, Florsheim told him there was a Yankee wanted to buy the patents; went again the next day, and saw Ball. The next day Ball called at Schilling's house and bought a spring section, and the next day bought two more at fifty cents each (pp. 203–204; also, p. 302).

Application for Patent No. 238,101, for the gore, was filed July 16, 1880. Application for the corset No. 238,-100, was filed August 12, 1880; both issued to Ball & Florsheim.

Ball & Florsheim commenced manufacturing spring sections in the fall of 1880. It is evident that Florsheim was at the bottom of the effort to buy Schilling's interest in the patent, and doubtless Ball and Florsheim were then planning to go into business together. Failing to make a purchase, Florsheim apparently then conceived the idea of obtaining patents on his own account.

Florsheim says that he learned early in February, 1879 (p. 125), that elastic gores, having wire springs, were old, and that he had spent his money for nothing. He claims, also, to have become satisfied at that time that Schilling's invention was not practicable; that he *then*

knew that the continuous springs, the groups and the margins were essential. Yet, after that, he took out the overall patent and one corset patent. He also delayed to make application for any patent on his own account until July, 1880, and then did not apply for that which was the most important. This action is unaccountable if, in February, 1879, he had a good thing, and knew that Schilling's devices were impracticable.

Florsheim states that he conceived the idea early in February, 1879; made one piece, having a continuous spring from top to bottom, with margins made of *cloth;* and made another like it, and had it sewed in an overall. He made two mistakes. The overall gore is not made of cloth, but of leather, and the springs therein are not continuous from top to bottom (p. 137). Mrs Hochstaedter makes the same mistakes (p. 153). August Florsheim makes the same mistakes, and says positively that the spring extended down the side of the section from group to group (pp. 165 and 166). Florsheim further states that in the latter end of February, 1879, he made three pieces, which were sewed into a corset, one on each side *and one in the back*, all three pieces extending the entire length of the corset (p. 139).

On page 126 Florsheim says that he had his springs coiled at first by J. P. Marsh, and that he "*was not able to get the wire coiled to any considerable length.*" Then it must be that the three corset sections, which he says he made in February, 1879, did not have continuous springs extending from top to bottom, because he was, at that time, unable to get springs coiled long enough to extend that distance.

On page 140 he states that the back-piece of the model filed with the application for the Schilling & Florsheim

corset patent was made according to his invention, with a continuous wire spring running either the entire length or most of the entire length of the section. He is shown to be mistaken in this. The groups in the model are not continuous and connected. Being mistaken on this point, it is not unreasonable to believe that he is also mistaken in relation to the sections which he claims to have made for a corset in February, 1879; and, as before stated, *the fact that he could not procure anything but short pieces of coiled wire is conclusive on the point.* Besides, as late as June or July, 1880, Ball bought sections having continuous springs from Schilling when he and Florsheim were arranging to go into business together.

Appellants rely largely upon the fact that Mr. Schilling's first statement and his testimony do not harmonize as to dates (p. 212). Schilling explains that there was a confusion in his mind between the words "application" and "filed," and that when the affidavits were made he therefore made a mistake in the date. The application for the overall patent was filed March 4, 1879. It contains partly continuous springs made by Schilling; and, between the 20th of February and 1st of March, he had applied to Mason to make a machine with which to make such spring sections, so that the mistake is explained and corrected, and Schilling's testimony is, by attending circumstances, conclusively shown to be correct as to dates.

Concerning the testimony of Alexander Schilling, the only thing which can be said is, that when he gave his testimony in the interference case, it was not as full as the testimony given in this suit, simply for the reason that he was not asked then about certain matters.

Appellants claim that when the first corset application was made, Mr. Lotz was expressly instructed to omit there-

from the margins and continuous springs. An examination of the testimony does not confirm this statement. Mr. Lotz (p. 172) was asked to state whether, when Schilling and Florsheim applied for the pantaloon and first corset patents, he conversed with them in reference to their being sole or joint inventors, and says:

"I have been attorney for obtaining the patents above "specified. I do not remember any particular conversa- "tion, only that much, that where two come in and claim "to be joint inventors I always inquire whether both "assisted in inventing the article, and explain to them "that the patent is legally null and void when obtained "by misrepresentation as to the inventorship."

Mr. Schilling denies that he ever made any admission to the effect that Florsheim was the inventor of the margins or of the continuous springs.

Bills for a pair of overalls and for brass spring wire have been produced by Florsheim. These bills have no tendency to prove the date of his invention. It is admitted that he paid for the overalls which were used as a model, in the joint application for the Patent No. 224,559, page 339.

Schilling, at the time the wire was bought, was receiving pay from Florsheim, who was furnishing leather, wire, etc., and the wire was doubtless purchased to be used by Schilling in making shoe-goring.

It should not be forgotten that the coiled springs, the groups, and the margins are all found in corsets and gaiters *manufactured by Schilling prior to February, 1879*, and that nearly all, if not all, of the supposed valuable features are enlarged upon in the Schilling & Florsheim corset patent, No. 222,082.

Interference—An interference proceeding was commenced between Florsheim and Schilling, and proceeded with up to the time of printing Schilling's testimony, but Schilling abandoned the interference because Periolat, who was furnishing the money, refused to go any further. (P. 220.) The attorney said it would cost three or four hundred dollars more. The interference was dissolved, and there was no adjudication by the office. If there had been, Schilling, under the authorities, could still attack the patent; and it would be the duty of the court, in the interest of the public, if satisfied that the patent is void, to so declare it.

That an interference, or other proceeding in the Patent Office, does not work an estoppel, is practically settled by this court, in *Andrews* v. *Hovey*, 124 U. S. 694. On page 715, it appears that an interference proceeding was partly relied on, and, on pages 717, 718, the court says:

"The question before us, as to the validity of a patent, "by reason of pre-existing acts or omissions of the inventor, "of the character of those involved in the present case, "*is not a question of executive administration*, but is "properly a judicial question. Although it may be a "question which, to some extent, may come under the "cognizance of the Commissioner of Patents, in granting "a patent, yet, like all the questions passed upon by him "in granting a patent, which are similar in character to "the question here involved, his determination thereof, in "granting a particular patent, has never been looked upon "*as concluding the determination of the courts* in regard "to those questions, respecting such particular patent, "and, *a fortiori*, respecting other patents."

The court here substantially follows the holdings at the Circuit in:

Union Paper-bag Co. v. *Crane*, 1 B. & A. 494.
Hubel v. *Tucker*, 24 Fed. R. 701; and cases there cited.

The review of the record in relation to this second branch of the case is not exhaustive, as it seemed unnecessary to consider it at all; but if the court should deem it to be important, a sufficient reference to the record will be found to enable it to get at the facts readily.

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For Appellee.

Notes on Appellant's Brief.

Appellant's first exception goes to the form of the decree below, and is immaterial on an appeal.

It is not essential that all matters embraced in the decree should be mentioned or recited in the opinion, as the decree, and not the opinion, is the record finding of the court.

The court must, of necessity, have decreed non-infringement, as both of appellant's patents refer to the same part of the corset, and an infringement of both patents by one article is absolutely impossible.

The second exception is answered by this Court in *Gardiner* vs. *Herz*, 118 U. S., 192, where it is practically held that a reference to several patents or prior machines showing parts of a combination may be had for the purpose of showing that there was no invention in putting the parts into their new relation with each other.

The exception itself shows that the court below so used the prior art in this case.

The question below was, Whether it was a patentable invention to put the older Mills Spring into the Miller Corset or Stay ? and the court held that it was not. The question here is, was it rightly answered ?

The court substantially followed appellant's expert, Smith, p. 81.

The third exception only relates to a detached portion of the opinion. The court, p. 31, said that the Mills patent of 1815 showed a gusset with spiral metal springs in tubes, which were puckered to provide for expansion; that Miller provided the plain non-elastic margin, and that under the then state of the art it was not invention when Florsheim put the sections into the Mills or Van Nostrand stays.

The court did say that, with only the difference of material, all of the elements of appellant's patents were found in the Miller patent, but the finding of "void for want of novelty" does not rest on this statement alone, as supposed, by this exception.

Better and Cheaper.—The law on this subject is well settled. When relating to a machine or *process for producing* a given article, better or cheaper may be considered, but when they relate to the *thing produced*, they are never considered.

Smith vs. *Nichols*, 21 Wall., 119;
Crouch vs. *Roemer*, 103 U. S., 797;
Tucker vs. *Spaulding*, 13 Wall., 453;
Curtis, §§ 72, 73.

Counsel, p. 17, says, That Miller "nowhere says that he shirrs or puckers the cloth, or specifies where the plain margin that he provides for is located, only by inference."

After describing a machine for puckering the gusset, they say (bottom of p. 337), "we then screw up the machine or vice to bring the movable jaw up to the fixed jaw; this *contracts or draws up* the gusset to the size required; we now take the gusset in its *contracted* form, with the pins or needles still in, as

previously mentioned, and it is now ready for the process of filling in the India-rubber thread or cord."

This is more than inferential, as Miller's contracting and Florsheim's puckering are the same thing.

Concerning margins, Miller says:

> "A margin on *each side* of the gusset"—"for leaving the required margin"—"when it is desired to form a strong margin to *the sides* of the gusset"—"and the *margin or edge* of the gusset."

Counsel also seems to stumble over Miller's statement that after basting the cover and lining together he stitches across, and does not say part way across. They use the same terms in referring to the springs or the cord, to-wit: "Each traverse across the gusset." After describing the stitching across, and the traverse across by the rubber springs, they say: "Where gussets made in this manner are worked into boots or other articles the stitches *by which they are secured* are passed through a margin on each side of the gusset and *not through the India rubber part of the gusset*, as heretofore;" which statement clearly defines the limits of the stitching, and the traverse across of the rubber springs.

Appellant's expert, Smith, p. 51, says that the Miller tubes "do not extend to the edges" and apparently have "a continuous spring and inelastic margins."

Counsel for appellants also states, p. 17, that complainant's experts "failed to find this, Miller's de-

scriptions, sufficiently explicit to enable them to make *a gusset* from it." These experts are Powers and Smith. Powers does not even mention the Miller patent, while Smith, pp. 51 and 81, states without hesitation, what the patent is for, and on p. 83, ans. 206, he says: "The *user* is left to find out for himself *how to apply them*;" and in ans. 207, that it was doubtful whether a skilled workman would make a success of *applying it to corsets*, and disclaims being a skilled workman.

This is all that there is, and it is a radically different proposition from that of being unable to make the gusset itself.

Counsel p. 23, says, that "There is no evidence that there ever was a corset manufactured at all resembling the Florsheim corset." The Schilling and Florsheim corset resembles it very closely. Appellant's witness Huleatt, p. 178, testifies that in March, 1879, he advised Florsheim to make the corset "*the same as any other corset* in shape—that is, to have it laced in the back with the springs *only on the side*."

NOTE.—On p. 21, of the original brief for appellee, the paragraph, commencing "The *Millers* suggest stronger springs for the top," &c., refers to the Mills patent of 1815. Mills and not Miller makes the suggestion there referred to.

L. L. BOND,
For Appellee.

March 14, 1890.

Office Supreme Court, U. S.
FILED.
OCT 21 1889.
JAMES H. MCKENNEY,
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IN THE

Supreme Court of the United States.

OCTOBER TERM, A. D. 1889.

No. 217.

SIMON FLORSHEIM and THOMAS H. BALL,
Appellants,

vs.

GUSTAV SCHILLING,
Appellee.

COMMENTS ON BRIEF FOR APPELLEE.

Appellee's counsel insists that the three claims of patent No. 238,100 are alike. This is for the purpose of urging that the Miller English patent anticipates all the claims. We contend that the Miller English patent anticipates only the second claim, even if construed as contended for by the appellee. It does not contain the elements of the first and third claims of patent No. 238,-100.

The contention (page 4) that the patent of Schilling and Florsheim had a model filed with it which had a margin such as is now in controversy, is very immaterial,

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The contention (page 4) that the patent of Schilling and Florsheim had a model filed with it which had a margin such as is now in controversy, is very immaterial,

because the record shows conclusively that when Schilling and Florsheim made that application, Florsheim stated in Schilling's presence that certain features shown in the sample taken to the patent solicitor were his sole invention, which Schilling admitted. Those features were not shown in the patent, and no claim made for them.

(P. 172, Q. 3 Lotz's Dep.. and P. 140, Q. 27, Florsheim's Dep., Eggert's Dep., 169. See the patent heretofore referred to—page 335.)

The second part of appellee's brief touching the priority of invention between Florsheim and Schilling, discusses a question that is not really before this court. The interference resulting in favor of Florsheim is a different question from that decided in *Andrew* v. *Hovey*, 124 U. S., 694. The court below also passes upon the patent and the invention as belonging to Florsheim, practically deciding that question in favor of Florsheim, and defendant Schilling took no appeal from the decision in that regard.

The proof, however, shows clearly that Florsheim was the prior inventor. Mr. Schilling fixed his dates of invention in his preliminary statement made in the interference, back of which the rules of the Patent Office do not allow him to go, as follows:

Conception of invention in claims 1 and 2, "March or April, 1879," matured in November, 1879. "Conceived invention in claim 3 in January, 1880." First embodied them in corsets in February or March, 1880, (page 189).

Mr. Florsheim fixes his date of invention in his preliminary statement early in February, 1889. (See page 191.) Mr. Florsheim is corroborated in his dates by Mrs. Hochstadter, who assisted him in making "Ex. 1" early in February, 1879, (page 154).

Also by Augustus Florsheim, who also assisted him, with Mrs. Hochstadter, make "Ex. 1" early in February, 1876, (page 159).

Also Frederick Eggert, who saw Mr. Florsheim have the gussets in February, 1879, (page 169.)

Also by J. E. Bear, who says Mr. Florsheim showed, him a corset like "Ex. 4" in March, 1879, (page 175).

Also by James P. Marsh, who coiled the wire springs in the last of January or first of February, 1879, for Mr. Florsheim, which Florsheim then used in making his invention, (page 177).

Also Mr. Huleatt, to whom Mr. Florsheim showed one of his corsets in March, 1879, (page 178).

This clearly places Florsheim's dates of invention prior to Schillings, which, taken in connection with the fact that Mr. Schiiling admitted that the invention was Mr. Florsheim's, is conclusive. He admitted this to Lotz, the patent solicitor; Lotz Dep., page 140, and to Eggert Eggert's Dep., page 169.

L. L. Coburn,
For Appellants.